

RAILWAY AGE

THE STANDARD RAILROAD WEEKLY FOR ALMOST A CENTURY

DECEMBER 23, 1950

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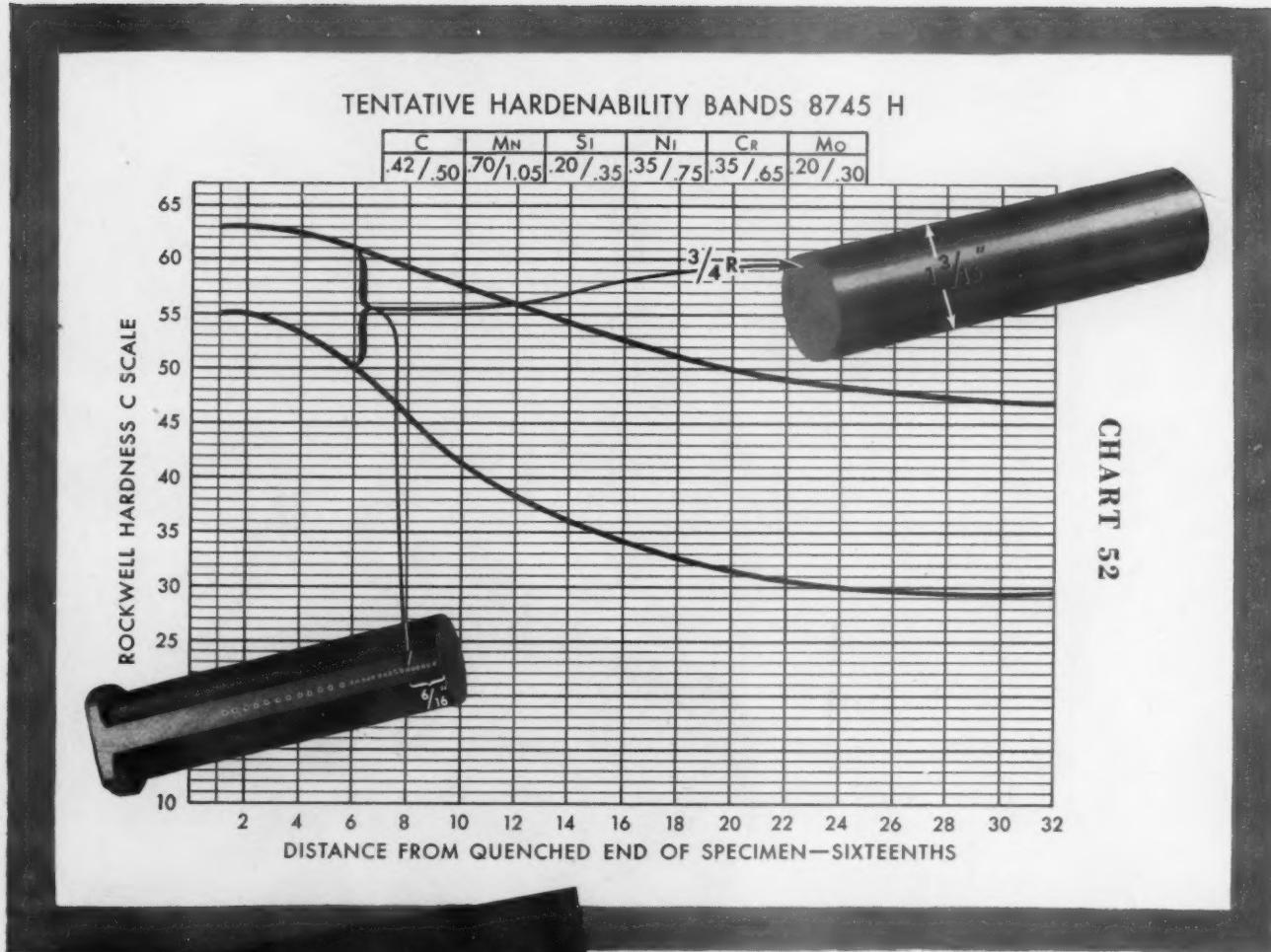
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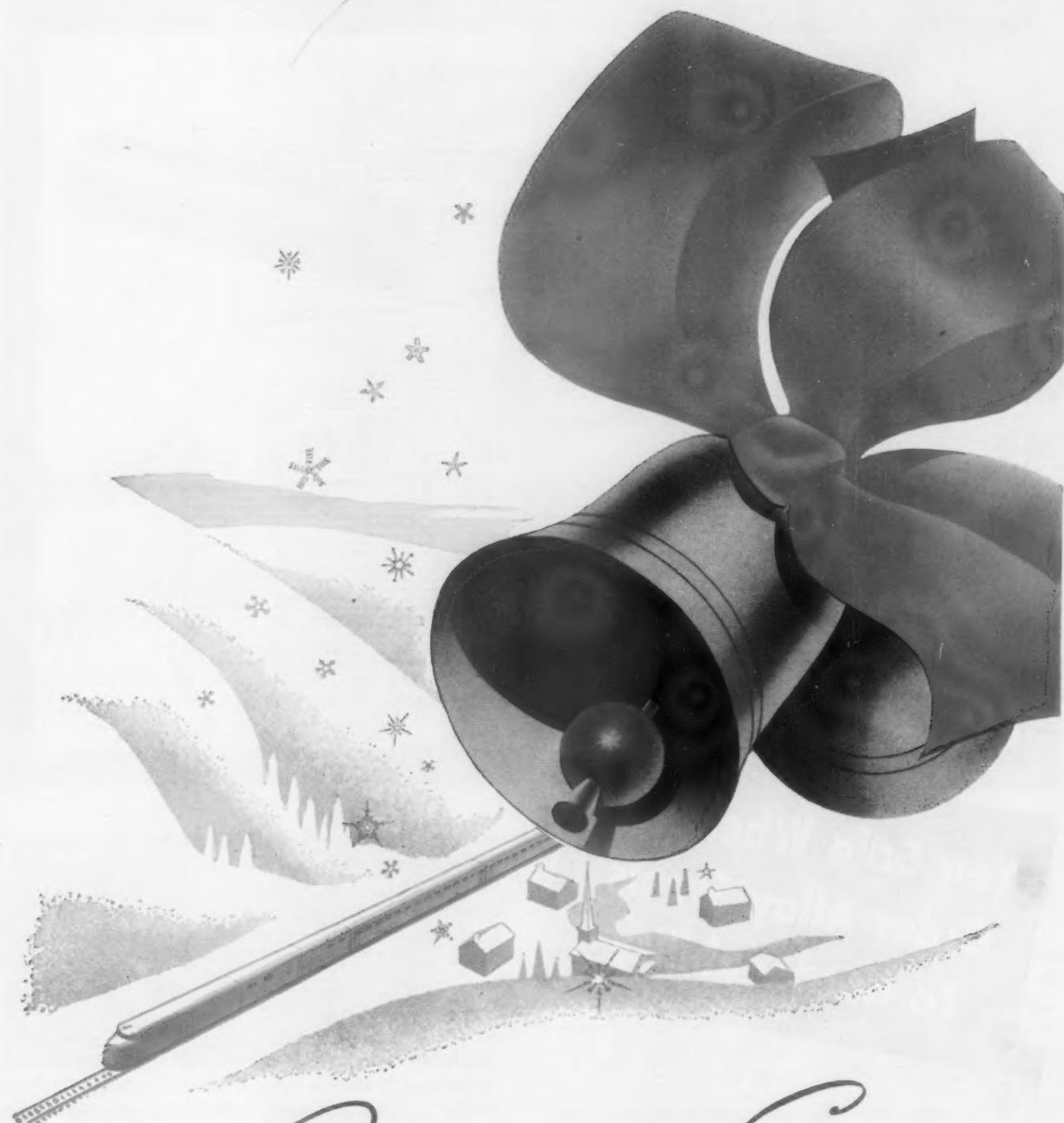
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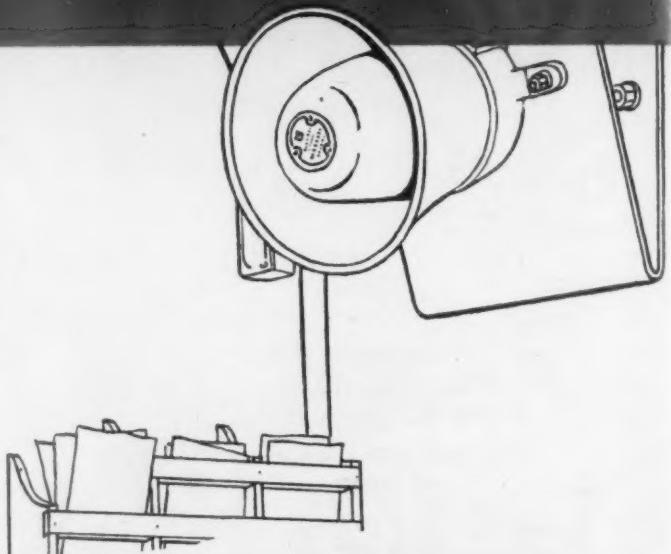
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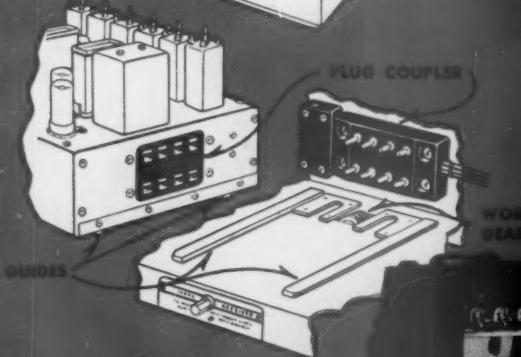


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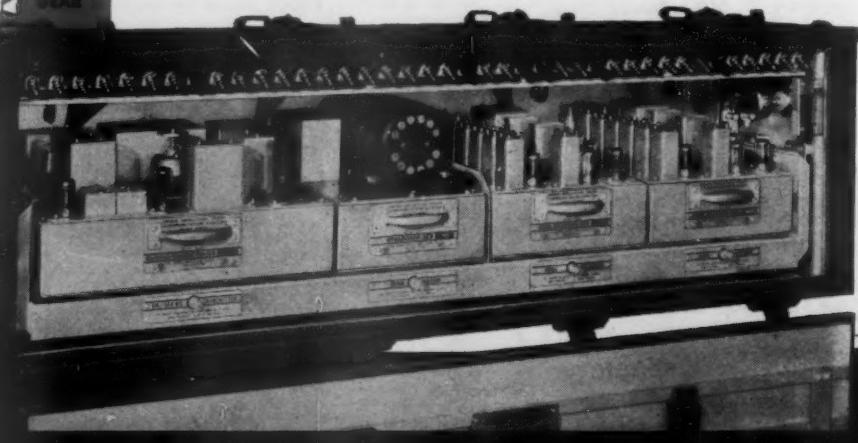
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WEEK AT A GLANCE

HIGH BRIDGE: Some 270 ft. above streambed, with clearance of nearly 50 ft. above the future water level, is the Southern's new Cumberland River bridge at Burnside, Ky. Why the bridge was built, and how, and the line relocation of which it was the major part, are all included in the illustrated feature article which begins on page 16.

LOOKING BETTER TO INVESTMENT TRUSTS: Despite the clouds on the labor horizon, and the continuing uncertainties of the competitive situation, professionally managed investment trusts are taking a keener interest in railroad securities, particularly those of the equity type. This is clearly shown in the analysis by Henry Ansbacher Long (page 22) of railroad holdings of 76 investment companies. The overall increase has, admittedly, not been great, and not fully commensurate with the total growth of investment trust portfolios as a whole; but it still reflects some increase in confidence in the railroad industry's near-future prospects.

GOING UP: Capital expenditures by Class I railroads in the first quarter of 1951 are expected to be some 43 per cent higher than in the corresponding period of 1950, according to the latest "Monthly Comment" of the I.C.C.'s Bureau of Transport Economics and Statistics. The "Comment," which is reviewed in the News pages, also contains articles on such subjects as transportation equipment, changes in railroad motive power, and passenger-mile revenues of rail, air and bus transportation.

MECHANICAL REFRIGERATION: Mechanical control of railroad car temperature appears to be just about ready for pretty general use, judging from the report, beginning on page 26, of two years of tests on three Thermo King refrigerating and heating units. The tests, as the report points out, covered a full range of both cooling and heating service in the United States and in Canada. Another interesting point brought out in the same article is that humidity control, for such tender products as lettuce and strawberries, is also expected shortly to become a regular part of the Thermo King unit.

READY FOR ANYTHING: It's anything but a pleasant prospect, and we fervently hope it may never happen. But the fact remains that within the next few years major American cities may become the targets of an attack by atom bombs or other equally destructive weapons. Under such circumstances, it's only good common sense to make such advance plans and preparations as may be possible—which is exactly what the many railroads serving the important Chicago metropolitan area have already done. Their organization—which emphasizes multiple headquarters for all major units—is outlined in a page 20-21 account of a talk by Clarence P. Fisher, general chairman of the Railroad division of Chicago's civil defense set-up.

STEAM GENERATOR CAR: On page 29 is a brief description of a steam generator car recently placed in service by the T. & P. for emergency use in heating passenger trains.

IN THE WEEK'S NEWS: November gross 18.1 per cent above November, 1949.—I.C.C. hears argument on 28300 rate scale.—Canadian roads apply for rate increase and fair return, following arbitrator's decision in favor of 40-hr. week and wage increase for 124,000 non-operating employees.—Senate group sees need for freight-absorption act.—Baldwin-Lima-Hamilton to buy Austin-Western.—I.C.C. tells Long Island to extend automatic cab signaling and automatic train control.

CROSSING PROTECTION: To permit use of automatic crossing gates at locations which might otherwise require manually controlled gates, the E.J.&E. has employed such special features as speed-measuring sections, time cutouts and dwarf signals to govern trains at several highway crossings. A description of the installation at Euclid avenue in Chicago Heights, with illustrations and a track and signal plan, appears on pages 24 and 25.

"SENSIBLE PLANE": The Defense Transport Administration will endeavor to operate "in the simplest and most direct fashion possible," its administrator, James K. Knudson, told the Southeast Shippers' Advisory Board at Miami Beach, Fla., last week. Because his talk outlined a great deal of the philosophy which his office may be expected to follow, it is reported at some length in the News section.

BEGINNING OVER AGAIN: With the matter of back mail pay settled by recent I.C.C. approval of the railroad-post office agreement, new hearings in the case began at Washington this week, to determine the basis of rates to apply after January 1. Early railroad witnesses, whose testimony is abstracted in the news, were H. C. Murphy of the Burlington, Gustav Metzman of the N.Y.C., J. E. Tilford of the L&N, and T. G. Sughrue of the Boston & Maine.

STRIKE SETTLEMENT: It is perhaps too early as yet to evaluate the effects of the wage settlement between the railroads and the four operating brotherhoods which was announced at Washington just as this issue went to press. But details of the settlement, and of some of the disgraceful events that led up to it—such as the quite obviously planned "sickness" of B.R.T. switchmen—are given in the first news story, on page 30. The responsibility for such irresponsible actions as the concerted "epidemic" are also the subject of a page 14 editorial.



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The New York Central's new, smooth-riding MU coaches have become so popular with travel-wise Bronx and Westchester commuters that more and more of them are going out of their way to "catch" trains made up of these cars. Features that make riders enthusiastic are spaciousness, quietness, comfort-

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PRAISE FROM "VEEP"—Fred E. Adams, who takes this train at Scarborough, says, "It reminds me of the Twentieth Century and rides like a modern Pullman . . . very relaxing and comfortable. I like especially the quietness, attractive decoration, and air conditioning."



PRAISE FROM STENO—Charlotte Tanner, daily two-way rider from Hartsdale, says, "It's just wonderful! Why it starts and stops so smoothly I can do a crossword puzzle without a jiggle. I like the restful colors, too, and the wide windows and seats."



PRAISE FROM SALESMAN—John W. Fox, Tarrytown commuter, says, "I like it very much. The fluorescent lighting makes it easy to read my paper and the ventilating system clears the smoke out quickly. I get this train both ways every day because I feel fresher when I get to work and it sort of revives me at night."

GENERAL ELECTRIC

152-14



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NL = Night Letter
LC = Deferred Cable
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RAILWAY AGE

EDITORIAL COMMENT

WAR, COMMUNISM AND CHRISTMAS

Of as much or more importance to the future of railroad men, and of everybody else, as the outlook for their own businesses is the threat of all-out war. More dangerous than such a war itself is the possibility that, if ineptly conducted, the war might be lost. Bungling or disloyal leaders might not only lose the war for us—they might so corrupt the economy with inflation and socialization in the process of conducting the war that the end result of victory would be hard to distinguish from defeat. The character of skilled leadership needed to win a war and not destroy our liberties in the process—if it were brought into play in advance of general conflict—would probably prevent general warfare from starting. Our enemies are not looking for a fight with equals or superiors—they are looking for pushovers, inferior to them in strength and determination.

Determination comes from deeply held convictions, usually rooted in loyalty to a moral code—not from shifting policies, grounded in nothing more stable than considerations of expediency and immediate self-interest. In a government responsible to a popular electorate, government leaders will seldom rise higher in character and intelligence than the standards set for them by the people back home. The citizens who loudly demand more determined and courageous leadership at Wash-

ington should first set the example of courage and loyalty to principle to which they expect public servants to adhere. It is alleged by the critics of Washington leaders that some of them have been unduly friendly toward socialism and even, at times, toward militant communism. The ineffectiveness of most of this criticism arises from the fact that it comes from business and "conservative" spokesmen who are no more dependably principled, in loyalty to economic freedom, than the political leaders whom they are criticising.

Lack of Consistent Principles

Most politicians and citizens who believe they are opposed to socialism suffer the fatal weakness that they lack firm and consistent principles. Communists and socialists have such principles, and therefore support every policy that tends toward the establishment of socialism. Because of their lack of fixed and consistent principles, most of those who are opposed to socialism as a whole usually, when confronted with specific socialist policies, oppose only those they believe will directly injure them, and favor those by which they believe they will benefit at the expense of other industries or people. This is strikingly illustrated by a pamphlet recently dis-

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tributed by the Chamber of Commerce of the United States, entitled "Seven Doors to Socialism," the seven doors mentioned being socialized medicine, Brannan plan for agriculture, federal aid to education, labor-management relations, socialized housing, "valley" authorities, and excessive government expenditures.

There is no mention of socialized transportation, although there has been more socialization of transportation, and there is more danger of its complete socialization, than of any other industry. Of course, the reason for this is that the chamber has so many powerful members who are engaged in socialized transportation or who benefit or believe they benefit by socialized transportation service rendered largely at the expense of the taxpayers.

Socialism in the United States was given a real setback in the recent election. But the trend toward it will, nevertheless, continue as long as so many voters and pressure groups, local and national, including groups of businessmen, continue to support specific socialistic policies. Socialism, communism, or war on this country by communists, are evils which, in essence, are indistinguishable one from the other, in that all of them have the single objective of the enslavement of humanity. The issue will not be settled in Washington. It will be settled by the people "back home," especially businessmen, by the pressure and education to which they subject their representatives in Washington.

Leadership to forestall socialism, communism and war, or to win a war against militant communism, requires determination and intelligence. Determination in a free country has its necessary origin in firm adherence to those moral principles which prescribe and defend economic and political freedom. Business and "conservative" leadership cannot expect this moral determination on the part of political leaders unless business spokesmen exhibit this quality themselves. They now do so to a degree which is distressingly inadequate to the need.

Principles Derived from Faith

Where do the principles of individual freedom come from? Where can one strengthen his conviction in them or find them if he does not have them at all? These principles are derived from *faith*—from belief, which can neither be proved nor disproved by the laboratory methods of science, that man is more than an animal or machine; that he is, somehow, a sacred being. Unless man is regarded as, in a measure, divine, then no one need have any compunction against regimenting, enslaving or killing him whenever it seems expedient or convenient to do so. "Justice is the will of the stronger" or "might makes right" are the cynical maxims which guide the Communists as they guided the Nazis, and as they also guide a lot of present-day constitutional lawyers and judges in the United States.

It is belief in and application of these maxims which give the Communists their ruthlessness, as they gave the same quality of behavior to the Nazis. How many Americans realize that respected jurists in this country

have long been voicing opinions in no way distinguishable from this bloodthirsty doctrine? How many Americans realize, when they advocate or tolerate socialization and regimentation for the "other fellow," but not for themselves, that they have also become adherents of the doctrine that "justice is the will of the stronger?" None of these people seems to harbor the slightest suspicion that anything they do can be reprehensible as long as they have the power to "get away with it."

There is no force making for and maintaining the conviction that man is sacred, and hence that it is morally wrong to treat him as a mere instrument for selfish ends, which is quite as effective and indispensable as the belief in the fundamental truth—either as historical fact or as a symbol reflecting reality—of the Christmas story which is commemorated throughout all the free world at this time of year. No one who ascribes dignity to the individual can with a free conscience consent to regimenting or enslaving him—that is, acquiesce in the materialistic doctrines and the naked force placed on a pedestal by Karl Marx and his followers. It is folly to expect that leadership against such doctrines will be mirrored in Washington until the original image first takes clear shape "back home." It is a serious matter when important officials in Washington are "soft" to communism in our international relations. It is just as serious when important business interests are "soft" to socialism on the home front.

WHO'S TO BLAME FOR RAILROAD STRIKES?

No crystal ball was used when it was predicted last week in these pages that the striking B. of R. T. switchmen would be coaxed to go back to work; and that nobody who was responsible for the walk-out would suffer any penalty for the harm they did to the national defense and the general economic welfare. These railroad strikes have become such a common occurrence, and have developed such a standardized pattern, that no more risk is involved in predicting how they will be terminated than there is in forecasting that such strikes will continue to recur until the Railway Labor Act is drastically amended.

A good many newspapers denounced last week's striking yardmen as "traitors." While the injury to the nation and the aid to its enemies resulting from this strike doubtless had the effect of treason, it would be an injustice to accuse the strikers—except, perhaps, a few of them—of intent to injure their country. The real reason for the strike lay in the fact that Congress has enacted legislation which encourages strikes on the railroads and has done absolutely nothing to revise this legislation to eliminate the damage that industrial warfare on the railroads is doing to the general welfare. Senator Donnell of Missouri made a brave effort a few

months ago to arouse interest among his colleagues in Congress in legislation to prohibit strikes on the railroads, but he got little support; and in November he was defeated for re-election.

It is a popular pastime to belabor the President and the Administration for this and other shortcomings of the federal government. Account is seldom taken, however, of the fact that it is the duty of Congress, not the President or the administrative branch, to legislate. The iniquitous Wagner Act was repealed and the less one-sided Taft-Hartley Law was substituted in its place, not by action of the Administration, but on the initiative of Congress. It is true that the Congress which threw out the Wagner Act was dominated by Republicans—but it is equally true that the Republicans, as a party, have been no more interested in securing a fairer and more effective Railway Labor Act than the Democrats.

No one can deny that the national defense and well-being are injured by strikes on the railroads—and no one can deny that the Railway Labor Act, as it now stands, actively encourages recurrent strikes. Instead of berating the Administration or railroad employees who behave exactly as the existing law encourages them to behave, critics of this behavior would be acting more realistically, if they should turn their criticism on Congress, which could correct this evil situation overnight if it cared to do so.

Railroad men will recover their good reputation as employees who are slow to resort to coercive methods to attain their ends, whenever Congress injects by appropriate legislation some hazard into the act of walking off the job. Through the many decades when that hazard existed, the railroads were practically strike-free. Now that the hazard has been removed, strikes or threats of strikes are practically a continuous performance. Apparently the American people do not object very much to these strikes or they would force Congress to put an end to them—which could be done very simply (1) by repealing the provisions of the law which effectively prevent management from replacing strikers with new employees, or (2) by enacting compulsory arbitration as proposed by Senator Donnell.

DANGER! CLOSE CLEARANCE IN LEGISLATION

During the closing hours of the recent eight-month session of the Massachusetts legislature, a much-debated bill was pushed through, establishing onerous provisions with which the railroads must comply pertaining to clearances. Thus the commonwealth became the first of the 48 states to enact legislation, promoted as a part of the Brotherhood of Railroad Trainmen's current national program for greater clearance minimums, and the organization now has this act as a precedent in pressing for similar laws elsewhere.

The bill, which became law in November, promises to prove very costly to the New England railroads, hemmed in as they are by old, long developed industrial areas, and plagued with a disproportionate number of yards and terminals.

The principal provisions of the law are that track centers in yards be established at a minimum of 13 feet, and on ladder tracks at 17 feet; that all side clearances equal or exceed 8 feet 6 inches—not even excepting freight loading platforms; and that new or reconstructed overhead structures provide a 22-foot 6-inch clearance over the top of the rails. An interesting exception to the provisions of the act are those structures which will be a part of the so-called "Central Artery," a superhighway which is about to be constructed by the commonwealth, on which, paradoxically, the legislators seem to have considered restricted clearance less dangerous.

A fortunate exception is that which excludes private industry from the provisions of the act. This exception was added to the bill only after pressure by New England business groups, and is a blessing even though discriminatory, in that the necessity of compliance would have caused many shippers to abandon their railroad connections, rather than involve themselves in costly or impractical changes to meet the requirements of offering traffic to the railroads. Herein, perhaps, lies the greatest jeopardy of clearance legislation which will now be pressed for vigorously in the other 47 states—the abandonment by carload shippers of track facilities if the acts include private industry's sidetracks as the Massachusetts bill did in its original form.

There appears to exist one practical defense measure against the enactment of similar legislation elsewhere—the elimination to the greatest extent possible of clearance situations where they do constitute real threats to safety. There is a conviction among some New England railroad men that greater evidence of effort and intent to eliminate the worst spots would have diminished pressure for the bill, and would have strengthened the case of the carriers in opposing it.

Today all industry, although perhaps not to the extreme degree of the railroads, is to some extent subject to governmental ukases and at times to the arbitrary decrees of administrative agencies of the government. Most of us are tax gatherers and are required to do considerable accounting work for the government in connection with such tax gathering, while others of us devote much of our time reporting to the government the business activities of our daily lives.

A great historian in describing the growth of absolute power in a totalitarian country once said, "The state swelled and the people shrank." History has proven, I think, how true this is because as the power of the state increases, the rights of the individual decrease and his liberties dwindle. As against this, where the power of the state is rigidly circumscribed by limitations of the law and it is prevented by proper checks and balances from delegating too much power to itself, history is no less a witness as to the freedom, prosperity and happiness enjoyed by the people. — Leo T. Crowley, chairman of the board, Chicago, Milwaukee, St. Paul & Pacific, before the St. Paul (Minn.) Transportation Club, October 10, 1950.



The Southern's northbound "Royal Palm" was the first train to cross the new Cumberland River bridge. The top of tie on this structure is approximately 270 ft. above the streambed

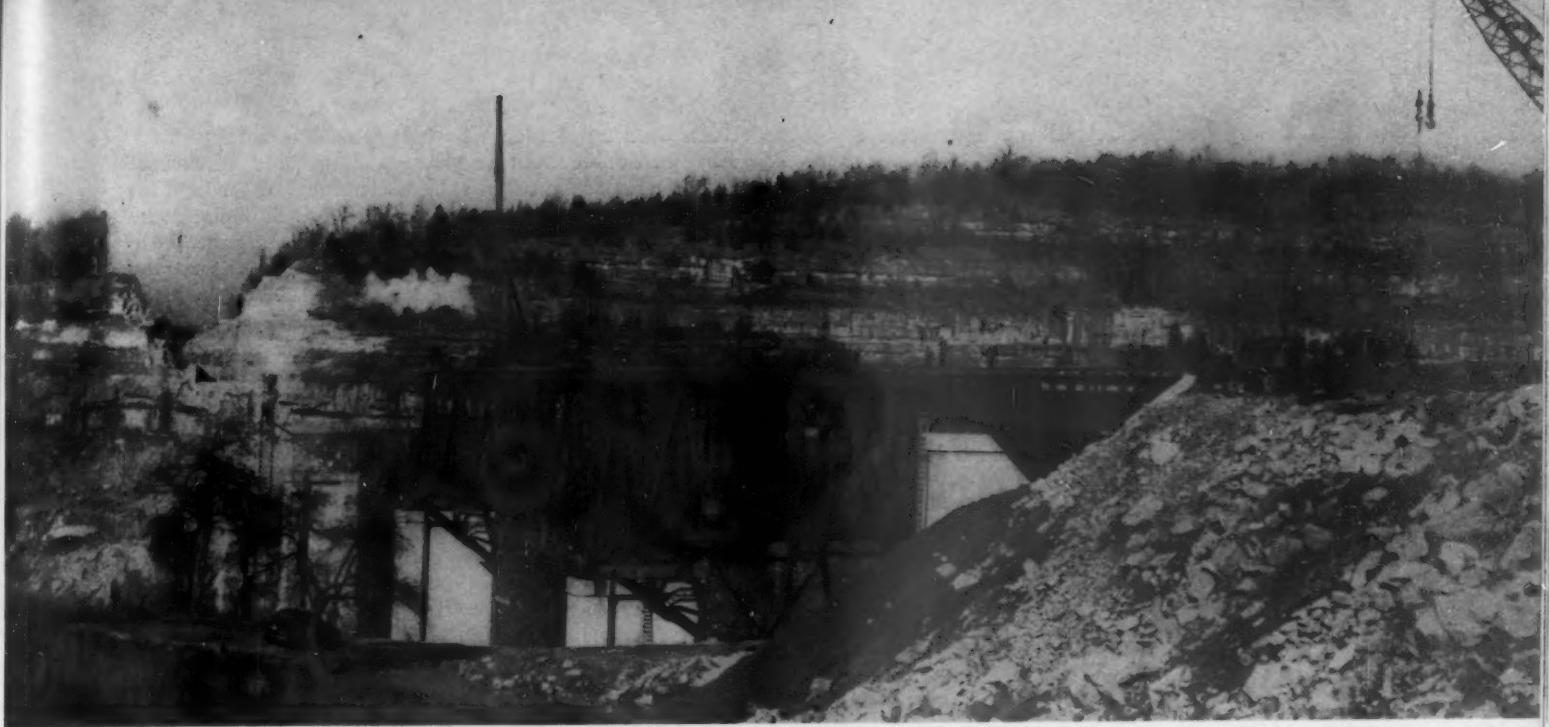
NEW HIGH BRIDGE OVER CUMBERLAND RIVER

Southern builds double-track cantilever structure with suspended span to provide sufficient clearance for future navigation over waters of Wolf Creek reservoir in Kentucky

On August 3 the Southern operated its first train over a new double-track railroad bridge spanning the Cumberland river at Burnside, Ky., on this road's line between Chattanooga, Tenn., and Cincinnati, Ohio. The new structure, which replaces a single-track bridge about 1,425 ft. downstream, was required, along with the relocation of several miles of track, because of the construction of the new Wolf Creek Dam and Reservoir project by the Corps of Engineers, U. S. Army, under the Flood Control Act of 1936. The purpose was to raise the tracks sufficiently above the crest line of the

dam to provide clearance for future navigation. Waters of the reservoir behind the new dam will cover the location of the Southern's old Cumberland River bridge, as well as a bridge carrying U. S. Highway No. 27 over the same stream.

The line change extended over a distance of 4.12 miles, beginning at a point on the existing double-track line north of the river and ending south of the river at a connection with the existing single-track line near Tateville, Ky. The project involved the construction of 3.54 miles of double-track line and the reconstruction of 0.58



The superstructure erection began with the placing of the deck girder at the south end of the bridge. This was followed by the erection of the first span of the anchor arm which was projected out from the pier on falsework bents. The next span was then cantilevered to the next pier.



Looking upstream toward the partially completed superstructure of the new bridge. The tapered piers in the foreground, for a bridge to carry U. S. Highway 27 over the impounded waters, are in contrast with the stepped-prism design of the railway bridge piers—a design which permitted the use of sliding forms.



After the south half of the suspended span had been cantilevered out to the center, the work was advanced in similar fashion from the north end. The spans were joined without difficulty and the suspended span was then swung

miles of existing double-track. It was also necessary to construct 2.5 miles of team and industry tracks to replace similar facilities at Burnside which will be inundated by the back waters of Wolf Creek dam.

The relocation of the line resulted in the elimination of a sag at the old bridge site and of two tunnels, one 1,076 ft. long, located on a 6-deg. curve, and another 1,165 ft. long on a 4-deg. curve. It also saves 755 ft. in distance, eliminates 150 deg. 30 min. of central angle, and reduces the grades from a maximum of 1.14 per cent, uncompensated, on the old line to maximum compensated grades of 1.0 per cent northbound and 0.8 per cent southbound on the new location. Maximum curves of 6 deg. on the old line were reduced to 5 deg. on the new line, and 59 ft. of rise and fall were eliminated.

Has Suspended Span

The new bridge is a deck-truss cantilever structure with two-span continuous anchor arms. In addition to an 82-ft. deck-plate girder at the south end, it consists of a 153-ft. suspended truss span flanked on each side by a 76-ft. 6-in. cantilever truss span, a 255-ft. truss span and a 229-ft. 6-in. truss span, the latter two spans forming a continuous anchor arm with a fixed point at a pier between them. The trusses are of the Warren type and are 50 ft. deep over the fixed piers and 46 ft. over the expansion piers. The suspended span is 36 ft. deep at the center and the anchor-arm spans are 40 ft. deep. The total length of the bridge is 1,359 ft. 6 in. between the centers of the abutment bearings.

The structure is supported on two abutments and five piers of reinforced concrete, all of which are founded on rock. To permit the use of sliding forms, the piers were designed as stepped prisms rather than with tapering sides. The entire structure was designed in accordance with the applicable provisions of the 1945 specifications of the American Railway Engineering Association and for Cooper's E-72 loading. The grade is level across the new bridge.

Silicon steel was used in the trusses except in the vertical members. Handrails are provided for the full length of the bridge on both sides of the deck, and a refuge bay is also provided at the center of the suspended span. An inspection walk extends under the deck for the full length of the truss spans. Conley rail-expansion joints are used at the expansion end of the suspended span.

The deck is secured against longitudinal movement by anticreep angles at every fourth tie. Also, every fourth tie on the bridge was boxed with rail anchors for three panels on each side of the main piers and for three panels at the expansion end of the suspended span. The

track over the bridge was fully plated with $7\frac{3}{4}$ -in. by $14\frac{3}{4}$ -in. double-shoulder plates, and tie pads were used.

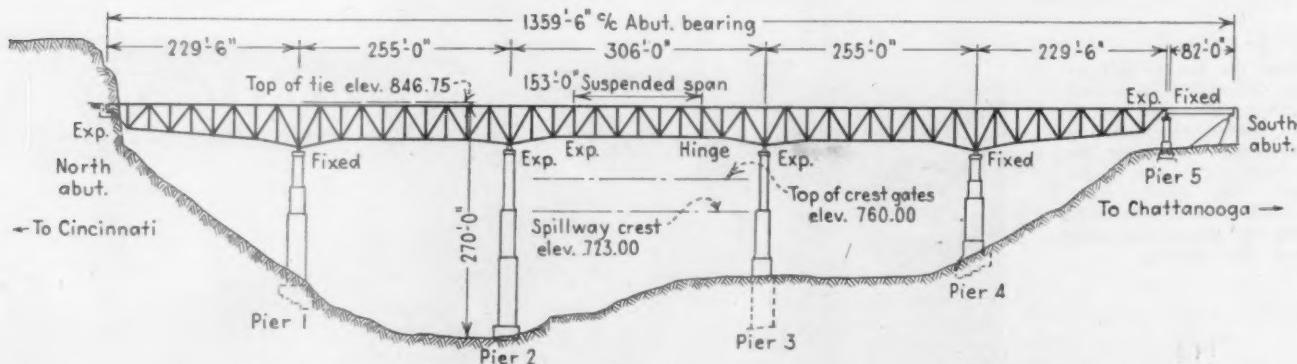
The new structure provides a clearance of 46 ft. 8 in. above the crest gates of Wolf Creek dam. This places the tops of ties 87 ft. above the crest gates, or 270 ft. above the streambed and 108 ft. above the tops of ties on the old structure. The tallest pier is about 215 ft. from its rock foundation to the top of the coping.

Work on the bridge substructure was begun on October 17, 1948, and was completed on March 2, 1950, after a delay of 34 days due partly to a strike and partly to high waters. A large sink hole was encountered during the construction of the south abutment, which had to be cleaned out by hand and filled with concrete.

At the time that the contract was awarded for the substructure, the successful bidder was constructing piers and abutments for a new highway bridge over the Cumberland river about 600 ft. downstream from the proposed railway bridge. His concrete-mixing plant was erected on the south bluff of the river and to the extent possible this was used in the construction of the substructure of the railway bridge. This plant included a 27-E stationary mixer, a 2-cu. yd., three-material batching plant, and a Model 200 Double-Rex Pumpcrete machine. The mixer discharged directly into the Pumpcrete hopper and the mix was forced by the machine through 8-in. steel pipe to the delivery points. Where practicable, concrete was delivered directly into the forms from the pipe.

Another concrete plant was erected on the river flats about 100 ft. west of the middle pier and included a batching plant and a 2-cu. yd. "Mixermobile," which is an end-dumping mixing drum mounted on a heavy-duty truck. This machine was equipped with a self-powered tower, hoppers, chutes, and a bucket. Concrete was mixed in it and deposited from heights up to 35 ft. by its hoppers and chutes. This plant was used for depositing concrete mixes in all places that were inaccessible to the Pumpcrete plant, or at times when the Pumpcrete plant was unavailable. When used on the high pier shafts, the mixes from the "Mixermobile" were raised by cranes or by a steel tower with hoisting equipment. The substructure contract was scheduled so that the abutment and piers at the south end were completed first. This enabled the steel erection to be started without undue delay.

Erection of the superstructure was started on August 29, 1949, and was completed on September 11, 1950. First, the girder span was placed at the south end, after which the first span of the anchor arm was projected out from Pier 5 on falsework bents. After reaching Pier 4, the next span of the anchor arm was cantilevered out to



Elevation of the double-track deck-truss cantilever structure. It has a two-span continuous anchor arm at each end supporting a 153-ft. suspended center span

Pier 3. The cantilever arm was then built toward Pier 2, and half of the suspended span was cantilevered out. The work then progressed in similar fashion from the north end. When the north half of the suspended span had been cantilevered out to the center, the spans were joined together and the suspended span was swung. The actual closure was effected without difficulty on April 28, 1950.

The paint used on this bridge was purchased to a special specification. The first shop coat consisted of a red lead iron-oxide pigment in a linseed-oil synthetic varnish vehicle. A second shop coat was applied of the same material with the addition of black magnetic iron oxide to produce a color contrast with the first coat. After the steel was erected, it was touched up with the shop coat mix at the places where the paint had been scratched or marred. It was then given a coat of aluminum paste pigment in a synthetic varnish vehicle.

Much Rock in Excavation

The line-change work was started on October 13, 1948, and was completed on October 22, 1949. The major items of this work included 495,555 cu. yd. of unclassified excavation of which about 90 per cent was solid rock; an overhaul of 2,944,000 station-yards; 1,890 lin. ft. of concrete pipe culverts in sizes varying from 24 in. to 42 in. and with concrete headwalls; 420 lin. ft. of corrugated metal and concrete pipe under highways; a 5-ft. by 5-ft. concrete box culvert; a 4-ft. arch culvert with 3-ft. sidewalls; a steel and concrete overhead highway bridge; a concrete highway underpass; the erection of 5.9 miles of right-of-way fences; and the relocating of 0.67 mile of local telephone line.

A large assortment of grading equipment was used in connection with this work. This included one 3-cu. yd. Lima and two 1 3/4-cu. yd. Link-Belt power shovels; one 3/4-cu. yd. Northwest dragline; one 1/2-cu. yd. Insley dragline; two 15-cu. yd. LaPlant-Cheate scrapers; one motor grader; five D-8 and one D-7 tractors; twelve Euclid end-dump wagons of 12- to 15-cu. yd. capacity; eight air compressors; ten wagon drills; six jack-hammers; eight trucks and other miscellaneous equipment.

All cuts were excavated a foot below subgrade and backfilled with selected material. The final roadbed in excavation was about 44 ft. wide with side slopes in rock of 1/4 to 1, and 1 to 1 in common excavation. Where the rock broke badly in two cuts that were 75 ft. deep, additional material was removed from the top of each slope to a depth of about 30 ft. for a distance of 14 ft. back from the face, and slide detector fences were installed.

The specified width of embankments was 33 ft., with 1 to 1 1/2 slopes. The excavated material was deposited in layers and thoroughly compacted by the heavy hauling equipment and by distributing the travel uniformly from slope to slope.

All track work was performed by company forces. The tracks consist of 132-lb. RE rail with 6-hole 36-in. joint bars; 7 3/4-in. by 13-in. double-shoulder tie plates, with 4 spikes used per plate on tangent track and 6 spikes on curves; 12 rail anchors per 39-ft. rail except for a distance of 500 ft. on each side of the bridge where the rail was anchored at each tie; creosoted oak and gum ties spaced 22 in. apart; and 8 in. of 1 1/2-in. clean crushed limestone ballast placed on 6 in. of crusher-run limestone subballast.

The subballast was deposited on the grade by trucks and spread by a spreader box operated by the truck. Also, track materials for the northbound track, which



The material excavated for the line change consisted of approximately 90 per cent stratified limestone. Where the rock broke badly in two of the deep cuts, a 14-ft. berm was provided and slide detector fences installed

was the first track laid, were delivered by truck and laid on the subballast. The remainder of the ballast for the northbound main, as well as all other track material, was delivered and distributed by rail. An Orton crane was used for unloading and handling the rails and other track materials. Materials for the southbound track were handled from the northbound main.

Under the terms of the railway's agreement with the government, all tracks on the old location, including industry tracks at Burnside, were removed by railway forces. This work commenced immediately after the new line was opened for operation, the railway making rapid progress to permit the new highway to be built on a portion of the old roadbed. The old railway bridge steel was sold to a scrap dealer and the piers were demolished.

The railway's engineers cooperated with the industries and the town officials of Burnside in the layout and location of the industrial section at a new location. A new combination freight and passenger station constructed by the railway consists of a 23-ft. by 61-ft. frame building with asbestos shingles sides and roof.

The planning and construction of the entire project was carried out under the general direction of J. B. Akers, chief engineer of the Southern. Field surveys and plans for the final location, as well as the general supervision of the construction, were under the direction of Lacy Moore, engineer of construction. J. B. Sutton was the resident engineer in charge of the work. The substructure and superstructure of the Cumberland River bridge were designed by Modjeski & Masters, consulting engineers, Harrisburg, Pa.

Work on this project was carried out under three contracts. One covered the substructure for the new bridge and was held by the Massman Construction Company, Kansas City, Mo., which was represented by its superintendent, T. W. Tisdale. Another covered the superstructure of the bridge and was held by the Mt. Vernon Bridge Company of Mt. Vernon, Ohio, which was represented by J. A. Cowan, superintendent. The third contract covered the grading, drainage, two highway structures, road changes and fencing, and was held jointly by the Oman Construction Company, Nashville, Tenn., and the Moss-Thornton Company, Leeds, Ala. B. A. Beasley, superintendent, represented these two companies.

Chicago's Railroads Prepare for "A" Bomb Attacks



Clarence P. Fisher. His task—to coordinate 33 different railroads and their operations in a 2,700-sq. mi. metropolitan area. His challenge—atomic horror

If the city of Chicago becomes the target for an atomic attack, the railroads of the city, and of its surrounding metropolitan area, are prepared to cope with the catastrophe." Their civil defense organization and the plan of action—should the city be struck—was revealed by Clarence P. Fisher, general manager of the Chicago Union Station Company and chairman of the Chicago Civil Defense Organization's Rail Transportation Division, at a recent railway supply group luncheon.

"Chicago was the third of three American cities selected by federal authorities for mock bombing tests," Mr. Fisher told the group. "In setting up our organization and our plan of action, we were able to benefit from the mistakes made during the previous tests at Washington, D. C., and Seattle, Wash." Mr. Fisher said that for the Chicago tests three hypothetical bomb blasts were outlined as having taken place in different sections of the city. Each "raised hell" with the railroad network of its particular area, but after working out alternate traffic routes by utilizing the vast network of lines that

lie within the city's 2,700-sq. mi. metropolitan area, Mr. Fisher said he was "convinced that it would take more than three such bombs to put the city's railroads out of commission."

The emergency plan of the Rail Transportation Division embraces all roads operating within the greater metropolitan area, which he defined as ranging to Waukegan on the north, Elgin and Aurora on the west, almost to Joliet on the southwest, thence in a great circle through Chesterton, Ind., and Porter to the Lake Michigan shore on the southeast.

Just Ten Seconds

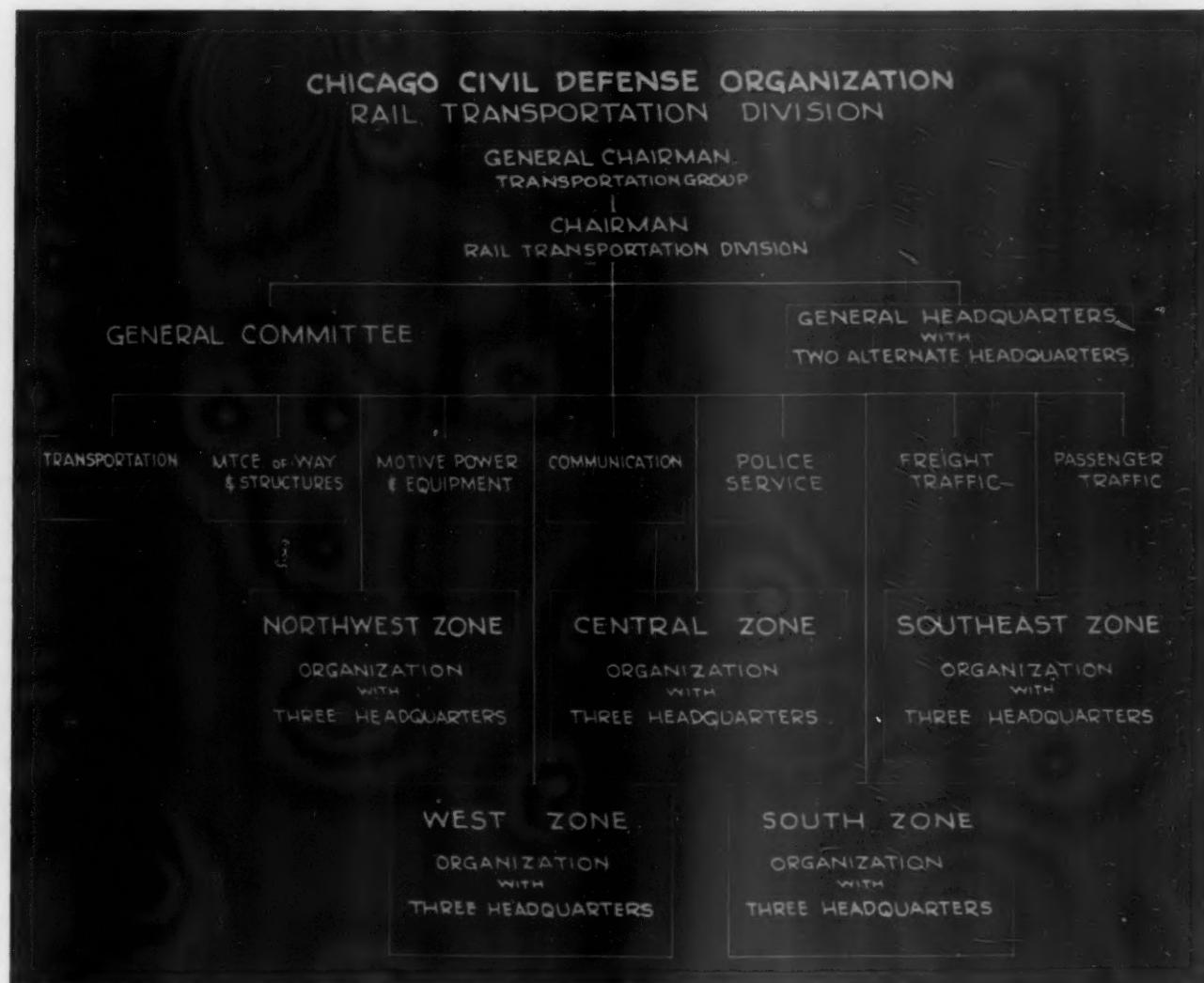
"In ten seconds it will all be over," he said, "but the area within a mile of the bomb blast must be written off as totally destroyed and most of the structures within an additional two miles will be beyond repair. Bearing in mind the great force of the bomb, we divided the metropolitan area into five railroad working zones and gave each zone a headquarters plus two alternate headquarters to insure its having an administration. A superintendent was selected from one of the large roads in each zone to serve as chairman while other superintendents were selected to serve as deputy chairmen, committeemen, etc. The general committee (which also has two alternate headquarters) includes higher officers from several railroads. This is to insure a more effective use and control of system-wide operations, particularly with respect to manpower, materials, equipment, motive power, etc., as under actual bombing conditions, the city's manpower and facilities may prove inadequate to meet essential needs."

Mr. Fisher said that if an "alert" warning is received by the city, the railroads' extensive loudspeaker systems and the telegraph-teletypewriter networks will at once flash a predetermined signal to all railroad headquarters and to operators and levermen in interlocking towers at various crossings and junction points who, in turn, will relay the signal to localized personnel. This warning signal can be disseminated in a matter of minutes, he said.

At the "alert" signal, interlocking signals will immediately be set to display "stop" indications for inbound trains at the perimeter of the metropolitan area and trains within that area will be halted at the first possible opportunity. Signals will then be cleared to permit evacuation—to selected dispersal zones—of all possible rail equipment and personnel in the downtown area of the city (which is generally conceded, he said, to be the most likely target for an attack).

After the Blast

As soon as the bombed areas can be identified, other areas will be cleared for train movements and trains will be detoured around the areas of destruction and damage. Railroad employees living within the city have



Multiple headquarters for all major units within the organization help to insure an adequate administration

been instructed to report at once to their assigned place of work, regardless of their normal working schedule. If they live within three miles of their assignment, they are to walk to work in order to minimize street traffic congestion. In this regard, Mr. Fisher pointed out that as the railroads control all movement on their properties, they will be in a better position to handle emergency traffic than will the city streets.

Track forces will begin immediately to inspect tracks in main lines and yards, while bridge and building forces will check viaducts and bridges and signal forces will begin ascertaining the damage sustained by signal and communication systems. Work equipment will be assigned as needed to clean up destroyed bridges or viaducts, or buildings and other obstructions that may have toppled onto essential trackage. Operating men have been detailed to assemble motive power and rolling stock for the evacuation of the wounded and as other needs dictate. Passenger equipment will be used for the injured and sick, but if a mass evacuation of a portion of the city is indicated, Mr. Fisher said, box cars and gondolas will be utilized. Several hundred tank cars, he said, will be set for immediate draining and cleaning, to be available for the transportation of water, both for drinking and for fire fighting.

"Railroad organizations are experienced with such emergencies as major fires, explosions, floods, etc.," Mr. Fisher concluded, "and I do not anticipate that there will be any insurmountable situations for them even in the face of this new horror. With our plan, and organization, the railroads of Chicago are well protected to carry on."

There is an old story about the stingy farmer who begrimed his work horse the oats it needed. He began to feed it a little sawdust with each meal. From week to week he increased the sawdust, while working the horse as usual. About the time he got the horse's rations down to practically all sawdust, it died. This horse story makes one think of the treatment much American industry receives. Take railroads for example. There is continuous effort to cut their oats (their income). But let an emergency arise, and what happens? Whether it be war, flood, drought, or blizzard, the railroads are expected to step into the breach and deliver the goods. If they have been starved to death with inadequate rates or overloaded with burdensome regulations, it makes no difference—they are asked to pull a double load.
—Montpelier, Vt., *Evening Argus*.



Large expenditures for railroad betterments, paid for entirely out of earnings, increase the value and earning power of the equity owners' property

The projected increased tempo of the preparedness program following closely upon the initial stage of the Korean conflict in early summer has again stimulated the interest of investment company managements in railroad equities. Since the third quarter of 1948, at which time trust holdings of the railroad stocks were analyzed in *Railway Age* (issue of December 11, 1948, page 56), there had not been any concerted buying of these shares. A few individual issues of such roads as the Chicago, Rock Island & Pacific, Atchison, Topeka & Santa Fe and Union Pacific have been favored by purchasers during the interim and Illinois Central was well bought during the first half of the present year, but these were exceptions to the general lack of enthusiasm. The comparatively favorable position of the majority of the railroads under an excess profits levy as well as the current improvement in many of the operating statements are, of course, other factors contributing to the switch to bullish sentiment during the third quarter of this year.

Despite the current display of enthusiasm, overall investment company holdings of common and preferred rail equities are not much greater than they were at the time of the review in these pages two years ago. The dollar value is \$120 million as against approximately \$100 million at that time, and even part of this increase must be attributed to the rise in the price level of several of the carrier issues. Although no slight should be directed at the possible significance of the recent upsurge of interest in rail securities, considering the growing popularity of the open-end investment companies as reflected in their net sales of a half billion dollars over the two year interval since the last analysis, overall portfolio increases have not kept pace with this growth. As of September 30, the combined asset value of both closed and open-end companies, the latter popularly known as mutual funds, was over \$3 billion; two years ago it approximated \$2 1/3 billion. (Reference may be made to the analysis appearing in the December 11, 1948, issue for a differentiation between these two types of companies and a brief explanation of the various other categories of investment trusts.)

It should be noted that some of the open-end companies, especially a few with remarkable growth records over the two-year interval, increased their reserves of cash and government bonds considerably, so that their lack

The author is a recognized independent authority on American investment companies. His articles on various aspects of these institutions appear frequently in financial periodicals.

Railroad Equities Look Better to Fund Managers

An analysis of the holdings of 76 investment companies

By HENRY ANSBACHER LONG

of a commensurate addition of rail equities is understandable. But even one of these, Fundamental Investors, which enlarged its liquid reserves from \$1 1/3 million to \$6 2/3 million, also increased its percentage of portfolio holdings in rail equities from 8.4 per cent in 1948 to 9.0 per cent in 1950. Axe-Houghton Fund "B," with one of the most impressive growth records percentage-wise over the two-year interval (from \$1.4 million to \$14.6 million), held 11.7 per cent of its net assets in rail equities at the earlier date as against 11.3 per cent currently. However, to the latter percentage figure might be added another 0.6 per cent, invested in Missouri Pacific 1st and refunding 5's.

In general, those funds which showed the greatest interest in the transportation issues two years ago still maintain the largest investments today percentage-wise. Similarly, a few trusts, notably four closed-end companies—General American Investors, Lehman Corporation, United States & Foreign Securities and United States & International Securities—which held neither common nor preferreds, maintain this position currently. The first of these funds, however, held 1 1/2 million of its assets in Missouri Pacific bonds.

Some speculation arose as to possible changes in the rail portfolio holdings of the funds managed by Investors Diversified Services (formerly known as Investors Syndicate) when control passed to Allegheny Corporation in April 1949. The only major equity addition made to the list of Investors Mutual, the largest diversified general investment management company in the group, was the purchase of 13,508 shares of Wheeling & Lake Erie \$5.75 guaranteed stock. Other additions up to September 30 were 1,000 shares of Santa Fe preferred, 1,700 of Illinois Central preferred and 3,200 of Nickel Plate preferred. Eliminated were 2,500 shares of Santa Fe common and 5,600 shares of Union Pacific preferred.

Most Popular Issues

Total holdings of railroad bonds as a percentage of overall assets are not heavy among investment companies, being slightly greater than the investment in equities, approximating \$125 million in value. As the previous analysis indicated, the major portion of this investment is concentrated in relatively few funds. Almost half, or 45 per cent, is held by the four bond groups of Keystone Custodian Funds.

The three most popular issues from the standpoint of the number of trusts holding these stocks in their portfolios were the same as in 1948, but Santa Fe improved its position considerably during the two-year period and was almost as well-liked as the two leaders, Southern Pacific and Great Northern. Thirty-two trusts held each of these two latter issues in their portfolios, but total market value of Southern Pacific (\$11 million) was almost double the \$6 million invested in Great Northern.

Number of shares held in the former approximated that of two years before and was 5 per cent of the issue outstanding. Most of the purchases of Southern Pacific since 1948 were concentrated in the current third quarter when 40,000 shares were added to 14 portfolios and resulted in its being the most heavily bought issue.

Specific action in Great Northern during the 1950 third quarter contrasted with that in Southern Pacific since purchases about balanced sales. Additions during the two-year interval occurred during the last half of 1949. Holdings of 141,000 shares, representing 4.6 per cent of the total issue, exceeded by 21,000 shares the 1948 investment. Investors Mutual held the largest individual block of 20,000 shares, while the next most substantial holding was 16,000 shares in the portfolio of Wellington Fund.

Santa Fe's popularity reflected its exceptionally strong working capital position as well as earnings outlook, although the long-continued hope of a stock split-up would appear to be fading. Held by 30 trust managements, the total investment of \$11½ million exceeded that of any other individual railroad holding. Total shares owned, amounting to 89,600, contrasted with 54,700 shares in only 21 portfolios two years earlier. Eight purchasers favored Santa Fe in the recent September quarter, but trust managers had also leaned to the buying side in varying degrees in every quarter since the end of 1948. Recent exceptional strength in the market price of this issue seems to justify the bullishness of investment company managements.

Nosing out Union Pacific, which ranked fourth in popularity in September 1948, Rock Island was held in 25 portfolios, two and a half times the number at the earlier date. Of this stock 173,000 shares were owned valued at \$8 million, which equalled 12.3 per cent of the total issue outstanding. These totals represent almost a three-fold increase for the two-year interval. Largest additions were made in the last half of 1949 and 16,000 shares were also added by eight managements in the current third quarterly period. Holdings of Union Pacific also increased somewhat during the last two years, total portfolio investment of 83,000 shares with a value slightly under \$8 million contrasting with an earlier 65,700 shares. Although represented on the investment lists of 22 managements, only 1.9 per cent of the outstanding shares were owned by the trusts.

Illinois Central, ranking sixth among investment company favorites, was another road which gained marked increased trust acceptance during the biennial period. With a value of almost \$9 million, 164,500 shares were held in 20 portfolios currently in contrast with 106,500 shares owned by 12 managements in September 1948. The present investment represents 12.1 per cent of the issue outstanding.

Preferred Stock Holdings

Most widely held among the preferred stocks was the 6 per cent senior equity of Nickel Plate. Fourteen managements held a total of 25,600 shares which represented 7.1 per cent of the outstanding issue; value approximated \$3½ million. Eleven trusts invested \$2½ million in 41,100 shares of the \$5.00 preferred issue of Gulf, Mobile & Ohio, equal to 14.5 per cent of the outstanding stock. Other more widely held preferreds were 11,100 Santa Fe 5 per cent (by 7 funds), 21,600 Rock Island 5 per cent (also by 7 trusts), 26,800 shares Denver & Rio Grande Western 5 per cent, 27,700 Kansas City Southern 4 per cent (by 8 managements), 21,000 Seaboard Air Line (by 5 companies), and 39,800 Southern 5 per cent and 26,000 Western Pacific 5 per cent, each by 8 trusts.

The Kansas City Southern and Seaboard holdings represented over 10 per cent of the outstanding issues.

The extent to which the increased purchases of rail equities will continue cannot be forecast, but steady strength in this department would seem to indicate that interest has not abated. Continued emphasis on war preparedness certainly contains factors which suggest that the regard of trust company managers for the shares of transportation companies will not quickly subside and overall investment may well become a more respectable percentage of total fund assets than at the present time. Portfolios—other than special preferred, low-priced or individual industry—with 7 per cent or more of assets in railroad commons and preferreds are the following:

	Per Cent
National Securities-Income	21.5
Republic Investors	17.5
Incorporated Investors	13.2
Axe-Houghton, Inc.	12.2
Axe-Houghton "B"	11.3
Investors Management Fund	10.7
Keystone Custodian Funds S-4	10.5
Sovereign Investors	10.0
Institutional Shares-Stock & Bond Group	9.2
George Putnam Fund	9.0
Fundamental Investors	9.0
Group Securities-Common Stock Fund	8.9
Knickerbocker Fund	8.6
General Investors Trust	8.1
Keystone Custodian Funds S-3	7.6
Wisconsin Investment Company	7.0

HOLDINGS OF 76 INVESTMENT COMPANIES IN COMMON AND PREFERRED STOCKS OF RAILROADS

(As of September 29, 1950*)

All issues are common stocks unless otherwise indicated

Total Shares Held	Per Cent of Issue	No. of Out- standing Companies
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(thousands)	standing	Holding
Alabama Great Southern	6.9	4.4 3
Alabama Great Southern 6% ptc. Pfd.	0.5	# 2
Alabama & Vicksburg \$6.00 gtd. Pfd.	2.5	6.0 1
Atchison, Topeka & Santa Fe	89.6	3.7 30
Atchison, Topeka & Santa Fe 5% non-cum. Pfd.	11.1	0.9 7
Atlantic Coast Line	49.6	6.0 8
Baltimore & Ohio	62.9	2.5 6
Baltimore & Ohio 4% non-cum. Pfd.	15.5	2.6 2
Boston & Maine 7% prior Pfd.	5.4	2.4 # 13
Canadian Pacific	96.7	# 9
Chesapeake & Ohio	68.7	0.9 9
Chesapeake & Ohio 3½% cum. cv. Pfd.	5.9	3.0 2
Chicago & North Western	15.0	1.8 4
Chicago & North Western 5% ptc. Pfd. "A"	17.0	1.9 3
Chicago, Milwaukee, St. Paul & Pacific	3.6	# 2
Chicago, Milwaukee, St. Paul & P. 5% non- cum. ptc. Pfd.	19.5	1.7 5
Chicago, Rock Island & Pacific	173.3	12.3 25
Chicago, Rock Island & Pacific 5% cum. cv. Pfd. "A"	21.6	3.1 7
Delaware & Hudson	42.1	7.8 4
Denver & Rio Grande Western	9.4	2.7 3
Denver & Rio Grande Western 5% cum. cv. Pfd.	26.8	8.2 6
Erie	52.2	2.1 5
Erie 5% cum. Pfd. "A"	28.3	7.0 5
Great Northern non-cum. Pfd.	141.1	4.6 32
Gulf, Mobile & Ohio	19.3	2.1 5
Gulf, Mobile & Ohio \$5.00 cum. Pfd.	41.1	14.5 11
Illinois Central	164.5	12.1 20
Illinois Central 6% non-cum. cv. Pfd. "A"	11.9	6.4 4
Kansas City Southern	4.5	0.9 6
Kansas City Southern 4% non-cum. Pfd.	27.7	13.2 8
Louisville & Nashville	22.8	1.0 6
Minneapolis & St. Louis	26.6	4.4 2
Missouri-Kansas-Texas	31.5	3.9 2
New York Central	15.2	# 4
New York, Chicago & St. Louis	7.4	2.2 5
New York, Chicago & St. Louis 6% cum. Pfd. "A"	25.6	7.1 14
Norfolk & Western	32.1	# 11
Northern Pacific	53.6	2.2 8
Pennsylvania	113.1	0.9 10
Pittsburgh & Lake Erie	15.9	1.8 4
St. Louis-San Francisco v.t.c.	32.0	2.6 2
St. Louis-San Francisco cum. cv. Pfd. "A", v.t.c.	30.0	4.8 4
Seaboard Air Line, v.t.c.	160.0	18.8 10
Seaboard Air Line 5% non-cum. cv. Pfd. "A"	21.0	14.0 5
Southern Pacific	190.9	5.1 32
Southern	84.2	6.5 15
Southern 5% non-cum. Pfd.	39.8	6.6 8
Texas & Pacific	1.9	# 2
Union Pacific	83.1	1.9 22
Virginian	1.0	# 2
Virginian 6% cum. Pfd.	2.1	# 2
Wabash 4½% cum. Pfd.	27.6	8.9 6
Western Maryland	2.0	# 2
Western Pacific	18.0	4.4 6
Western Pacific 5% cum. ptc. Pfd. "A"	26.0	8.1 8
Wheeling & Lake Erie \$5.75 gtd.	13.5	4.0 1

Total holdings less than 0.9 per cent of stock outstanding.

*A minor number of portfolios were analyzed as of dates approximating September 30, as holdings on this date were not made available.

Signals for

Special features, such as speed-measuring sections and time cutouts, as well as dwarf signals to govern trains, have been installed by the Elgin, Joliet & Eastern on several highway crossing protection projects. The objectives of these features are to make it practicable to operate gates with exclusively automatic controls, and thus overcome local circumstances which otherwise might preclude the use of gates or necessitate manual control.

At Euclid avenue in Chicago Heights, Ill., new short-arm gates with flashing-light signals were installed at a crossing which had previously been protected by flagmen. Chicago Heights is on the double-track main line of the E.J. & E. between Joliet, Ill., and Gary, Ind. About 28 freight trains and 16 switching moves are operated over this crossing every 24 hours. The E.J. & E. crosses the Chicago & Eastern Illinois and the Chicago, Milwaukee, St. Paul & Pacific in Chicago Heights. Therefore, many of the E.J. & E. trains stop to set off or pick up cars in interchange with these other roads. The layout of tracks is shown in the diagram (page 25). Westbound trains which have no stops to make in Chicago Heights may operate through this territory and across the crossing at Euclid avenue at speeds up to 30 m.p.h. When a westbound train approaches at normal speed, the crossing protection is set in operation when the train enters

track circuit 2T, which provides a total approach control of 1,053 ft.

In normal operation, for preliminary warning period of five seconds, a bell rings at the crossing, and the lamps are operated in the flashing-light signals and on the gate arms. Then the gates are lowered, which requires about 8 seconds, and at the same time the dwarf signal No. 1, which is 75 ft. from the center of the pavement, changes its aspect from red to green.

Stop on Approach

If a westbound train is approaching this crossing at a slow speed, preparing to stop on the approach section 2T to set out cars, the street traffic on Euclid avenue would needlessly be delayed if the crossing protection



Dwarf with "X" marker governs train movements over street



Gates are down for diesel switcher starting across Euclid avenue

Trains at Highway Crossings

Speed-measuring sections, time cutouts and dwarf signals are special features which permit exclusive automatic control of crossing gates where gates might otherwise be excluded or necessitate manual control

were set in operation and the gates lowered. Therefore, before the train gets to the approach section 2T, its speed is measured as the front trucks traverse track circuit 1T. If the speed is 10 m.p.h. or less, the approach section 2T is automatically excluded from the control of the crossing protection. When the locomotive and train enters track circuit 2T under these circumstances, the crossing protection is not set in operation, and the dwarf signal No. 1 continues to display the red aspect. If the train continues toward the crossing, when the front trucks enter "cut-in" track circuit 3T, the crossing protection is set in operation and the gates are lowered. At the same time, the aspect of dwarf signal No. 1 changes from red to green.

On the other hand, if a train stops so that it occupies section 3T for two minutes or more, the aspect of dwarf No. 1 then changes from green to red. Then after 20 seconds the gates are raised. This 20-sec. period provides for a situation in which a train is closely approaching the crossing, having started from a stop. In such an instance, the gates stay down until the train either has had time to occupy the track sections 4T and 5T, thus holding the gates down, or has stopped short of the crossing.

If a westbound train approaches the crossing at a speed exceeding 10 m.p.h. and therefore sets the crossing protection in operation and lowers the gates when it enters track circuit 2T, a time-measuring period is started as it enters track circuit 2T. If two minutes then expire before the train enters track circuit 4T, the aspect of dwarf signal No. 1 changes from green to red, as explained above in discussing track circuit 3T.

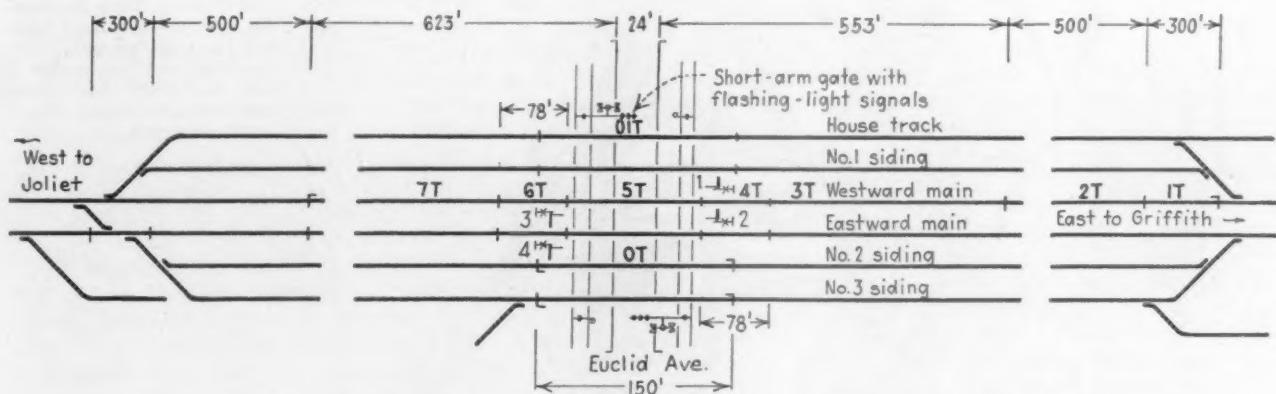
When the gates have been raised and crossing protection has been cut out because a westbound train stops

on an approach track circuit, that train, when it is ready to proceed over the crossing, must approach slowly and stop with the front truck of the locomotive opposite the dwarf signal No. 1, which is 75 ft. from the center of the street pavement. With the wheels at this location, they are to the west of "yellow" insulated joints which mark the east end of a track circuit 4T. Shunting this track circuit initiates operation of the crossing protection. After the gates are down, the aspect of dwarf signal No. 1 changes from red to green. Further details of this installation and an explanation of the applications of the principles to a different track arrangement appear in a more extended article in the September, 1950, issue of *Railway Signaling and Communications*.

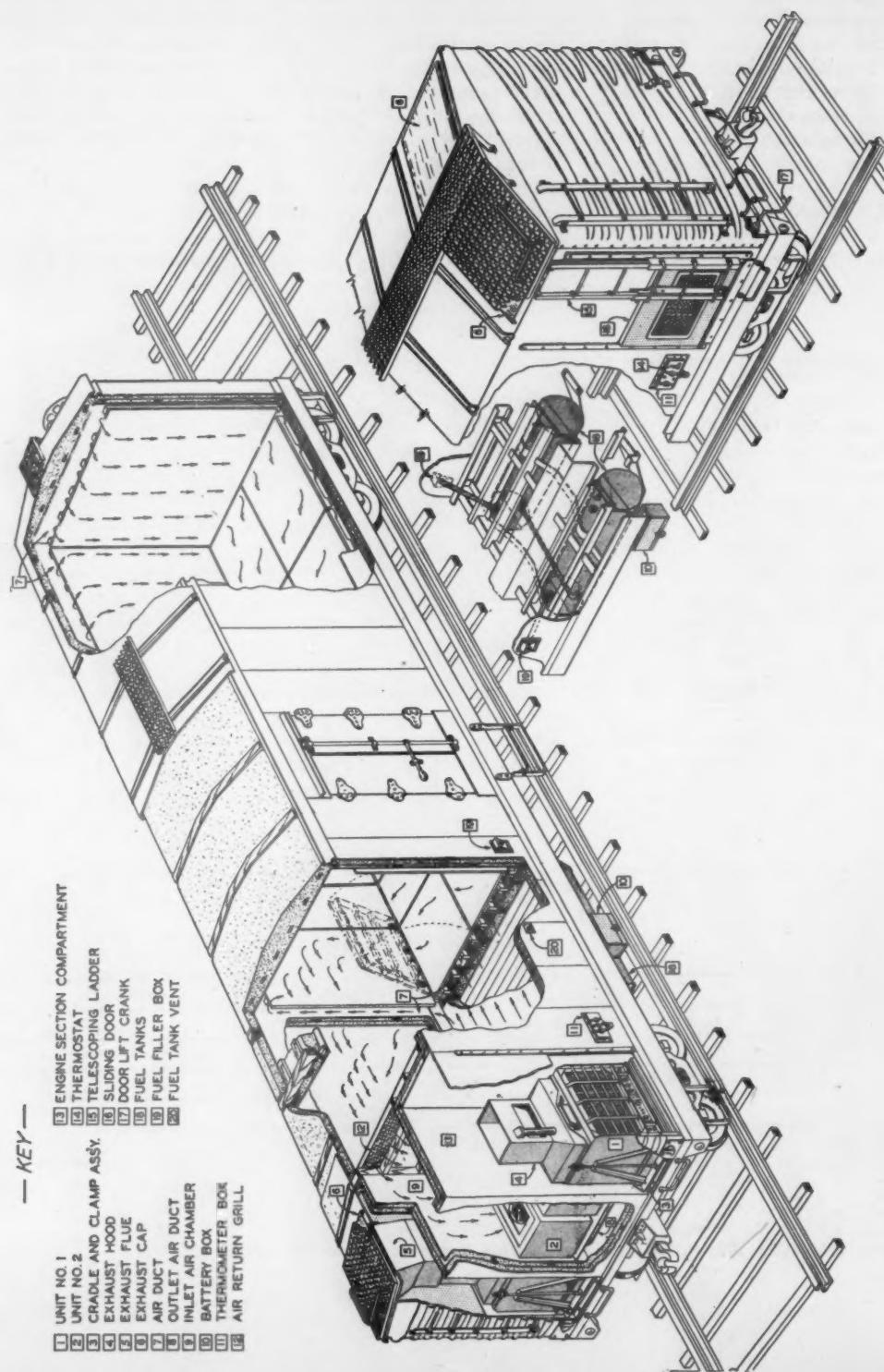
Dwarf Signal Rule

The dwarf signals used on these crossing protection projects are the searchlight type, arranged to display either red or green. Below each signal there is a large letter "X" which designates it as a signal associated with crossing protection, and as having no connection with automatic block signal or interlocking signal installations. The road's bulletins and timetable instructions explain that a green aspect on such a signal indicates that the crossing protection is operating properly, and that a red light may indicate that the crossing is not protected and therefore, care must be exercised to prevent accidents to highway vehicles and pedestrians.

These crossing signal projects were planned and installed by railroad forces under the jurisdiction of F. G. Campbell, chief engineer, and under the direction of W. K. Waltz, signal engineer.



Track and signal plan of crossing protection illustrating speed measuring sections and dwarf signals



Fruit Growers Express car equipped with Thermo King refrigerating and heating system. Temperature indicating dials and indicator lights showing the operating status of both units are on the box, located at the right of the grill

The Thermo King mechanical refrigerating and heating system occupies the space of one ice bunker in the car, with fuel tanks and storage battery mounted underneath



Left—Placing an engine-compressor-condenser unit on the rolling platform. Right—with fuel and control connections

in place, the unit is rolled into the car. The sliding door is closed by a crank inserted in a shaft at the end of the car

MECHANICAL REFRIGERATION OF CARS

Two years' tests performing full range of cooling and heating service in refrigerator cars made in United States and Canada

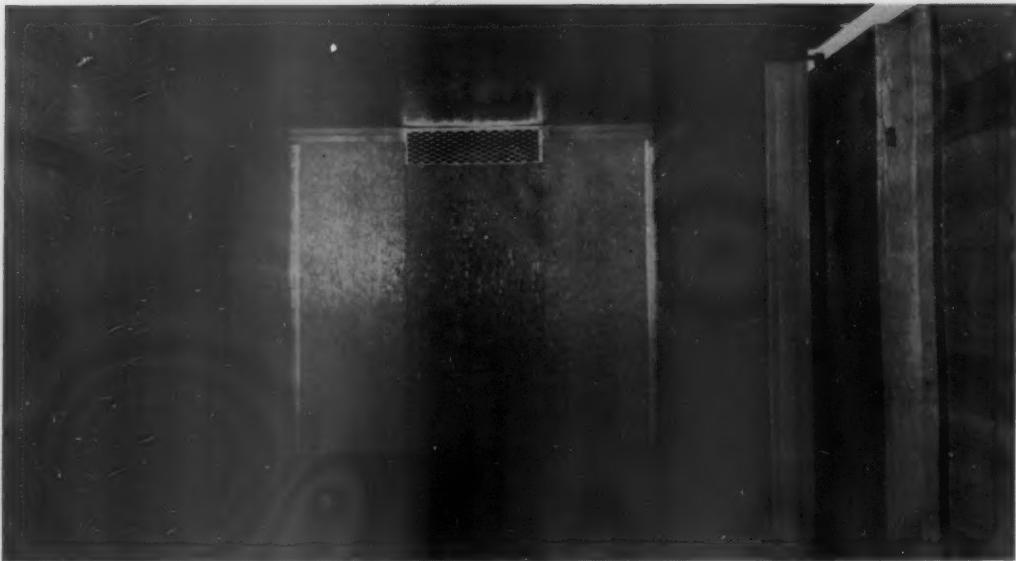
After two years of service tests on three refrigerator cars in the United States and Canada the Thermo King railway car refrigerating and heating system is being installed on additional cars. Several besides the test cars are now in use and 1,100 others are on order by the Fruit Growers Express. These will be built with 6 in. of insulation, and provision made for the later installation of a mechanical refrigerating system. Thermo King units are also in service on 14,000 highway trucks.

The refrigerating equipment occupies the space of the ice bunker at the end of the car. To insure unbroken service during a trip there are two complete units. Each unit consists of a 28-hp. gasoline engine, a direct-connected Freon compressor, a condenser, and a generator mounted in a single housing, and an evaporator unit and motor-driven air-circulating fan. The engine and compressor units are placed one on either side of the end of the car and can be removed for replacement through a grill door in the side of the car. The unit is mounted on a rolling platform which is readily pulled

out of the car for replacement of the unit and pushed back into the car with the new unit in place. Two connections—one for fuel and one for controls—are made before the unit is pushed into the car. The sliding door is closed by a crank applied in a socket in the end of the car. Closing the door also lowers a hood which carries the exhaust and hot air from the condenser up and out through a capped hatch in the roof of the car.

In an insulated compartment between the two engine-compressor units are the two evaporators and the fans by which the air is circulated around the load. The air is forced out through ducts under the solid floor which direct it into the space between the load and the end and side walls of the car through which it flows upward, thence over the top of the load and back to the air chamber above the evaporator units through a grill in the top of the bulkhead. The load is thus surrounded by air at the temperature at which the load is to be maintained. When required, heat is provided by the equipment, operating on the "reverse-cycle" or "heat-pump" principle.

The temperature to which the load is cooled and at which it is held is determined by thermostat setting. Once the thermostat is set, the control of the unit is automatic. The controls include starting and stopping the set to meet the demands of the load for cooling or heating, changing the operation of the set from cooling to heating or vice versa, when the outside temperature drops below or rises above that for which the thermostat is set, and starting a battery-powered electric recirculat-



The car is of the cold-wall type. Return air flows through grill into chamber above evaporators

ing fan to prevent the development of uneven temperatures while the unit is off. During precooling periods both units are in operation. After the temperature of the interior of the car has been reduced to the thermostat setting, one unit shuts down and a single unit protects the load thereafter. The other unit then operates as a stand-by. It automatically takes up the load should the operating unit fail. Each unit is equipped with an automatic time-regulated defrosting device which goes into operation every five hours.

The two units have a capacity of three tons of refrigeration at zero degrees F. One unit has sufficient capacity to maintain the temperature in the car at zero.

Two fuel tanks are located under the car. These are connected and can be filled from either side of the car. They have a combined capacity of 155 gal. Fuel consumption depends on the weather conditions and the duration of the trip from loading to unloading of the car. In general, consumption is heaviest during the summer months when the cooling load is greatest and lightest during the spring and fall when the load varies between light heating and light cooling.

A box on each side of the A end of the car contains thermometers and a system of signal lights which tell at a glance the operating condition of both units. These include indications of the temperature at the top and bottom of the load and the thermostat setting.

Humidity Control May Be Next

A development of interest to shippers was revealed at a press conference in New York on December 7 by Frederick McK. Jones, chief engineer of the U. S. Thermo Control Company, Minneapolis, Minn., manufacturers of the Thermo King equipment. This is in the field of humidity control that is expected shortly to enable shippers of such products as lettuce and strawberries to avail themselves of the advantages of mechanical refrigeration. It will eliminate top and body icing, and prevent slime, mold, wilting and dehydration.

This involves a system of dampers that seal off the cargo compartment and stop the fresh produce from "breathing." These dampers do not swing into sealing position until moisture brought out by the preliminary cooling process has been carried away. But once the product has attained the desired coolness, the "lid" goes

on and the refrigerated air for the remainder of the haul is confined to the cold walls that envelop the load. To prevent stratification, a small auxiliary fan circulates air within the cargo space.

The humidity control device will eventually become a regular part of Thermo King units for both railroad cars and trucks.

Some Test Results

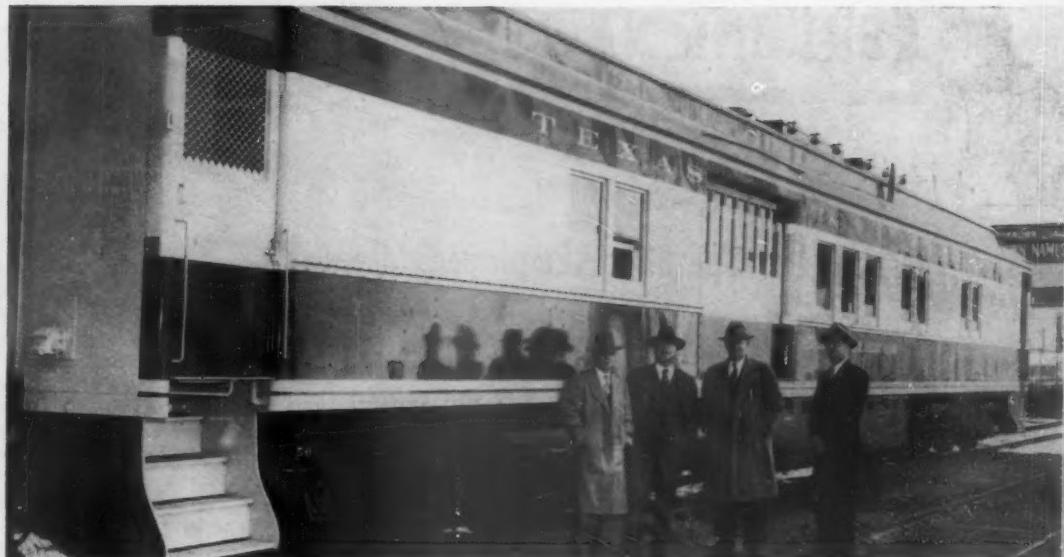
The service testing of the Thermo King equipment in refrigerator cars began late in 1948. The cars have handled apples, canned goods and frozen fish on transcontinental trips in Canada; and frozen meats, frozen concentrates, apples, oranges, and potatoes through all seasons in the United States on routes varying from less than 900 miles to over 3,000 miles. The temperatures of the loads at unloading have been uniformly close to the thermostat setting, and the condition of the lading excellent.

On one Canadian trip the mechanically refrigerated car carried 30,000 lb. of frozen halibut between Prince Rupert, B. C., and Montreal, Que., a distance of 3,000 miles, during which outside temperatures ranged from 38 to 104 deg. F. This trip was made between June 23 and July 2, 1949, with an elapsed time of 206 hrs., during which 220 Imp. gal. of gasoline were consumed, including pre-cooling as well as demands during the trip. According to the Fisheries Research Board the temperature distribution in the car was better than is found in many cold storage rooms in which frozen fish is stored.

In a trip of 3,000 miles between Ontario, Cal., and New York, between October 12 and October 23, 1949, a load of oranges was delivered, the temperature of which ranged from 41 to 45 deg. F. When loaded, the temperature of the fruit averaged 73 deg. and the atmospheric temperature 95 deg. With the thermostat set at 45 deg. the product temperature was reduced to an average of 45 deg. in 12 hrs. 45 min. after the car doors were closed. The fuel consumption was 85 gal.

Experience with these cars indicates that maintenance, depreciation, interest, and the operating cost of the refrigerating equipment will average about 27 cents per hour of elapsed time in service. Units will be repaired at centralized points. Removing them from and replacing them in the car does not require skilled labor.

New Texas & Pacific steam-generator car after being inspected by mechanical officers: (left to right) J. L. Perkins, general car inspector; J. O. Fraker, electrical engineer and diesel inspector; F. R. Denney, assistant mechanical superintendent; and G. D. Roberts, electrical inspector



Steam-generator car interior with diesel-driven electric generator and air compressor in right foreground—T. & P. operating vice-president, L. C. Porter (left), gets an "earful" from the diesel supervisor, who has to talk against engineroom noise

Texas & Pacific Equips Steam Generator Car

The Texas & Pacific recently placed in service a steam-generator car designed for use in heating passenger trains when emergency requires that motive power be supplied by a diesel-electric freight locomotive without steam heat equipment. About 7,000 lb. of steam per hour is supplied by this car, or enough to air-condition a 22-car passenger train in summer or to heat it in winter. With a fuel tank capacity of 1,000 gal. and water tank capacity

of 5,000 gal., this generator car will allow the T. & P.'s freight diesels to run in passenger train service from Fort Worth to El Paso nonstop should the need arise.

The all-steel steam generator car, converted from a T. & P. 1,200-Series coach at the company shops at Marshall, Tex., carries two 3,500-lb. flash-type steam generators made by the Vapor Heating Corporation, Chicago. In two minutes, 250 lb. of steam pressure can be built up. The car also has a 25-kw. diesel-driven generator to supply electric power to the steam generator and to light the car. In emergency, the car may be used with a diesel passenger locomotive to meet exceptionally heavy steam requirements. It can also be used as a stationary power plant at any place on the railroad. The car is painted in the blue and gray colors of T. & P. "Eagle" trains.

GENERAL NEWS

Railroads, Operating Employees Reach Agreement in Wage-Rules Cases

Final conferences began after termination of yardmen's "wildcat" strikes in key rail centers

Representatives of management and executives of the four operating brotherhoods were this week holding joint meetings at the White House as John R. Steelman, assistant to President Truman, stepped up his efforts to mediate the pending wage and rules disputes.

The White House meetings, which were long sessions extending from afternoons into early morning hours, were the first joint conferences participated in by the brotherhood and management negotiators since government control and army operation of the railroads began last August 27.

The first joint meeting in which Dr. Steelman brought the parties together was held December 16, after the return to work of yardmen members of the Brotherhood of Railroad Trainmen, who staged last week's "wildcat" strikes at several points, including Chicago, St. Louis and Washington.

The strikes ended after President Truman made an appeal to the strikers in his December 15 radio address on the national emergency. The President called the strikes "unlawful." He then added:

"I ask you men who are on strike to realize that no matter how serious you believe your grievances are, nothing can excuse the fact that you are adding to your country's danger. I ask you, in the name of our country, to return immediately to your posts of duty."

Railroads "Frankly Critical"

Meanwhile, a December 14 statement asserting that the railroads were "frankly critical of the union tactics in the long dispute over the rules and wages of operating employees" was issued in Washington by chairmen of the carrier's regional conference committees—L. W. Horning for the eastern roads, Daniel P. Loomis for the western roads, and C. D. Mackay for the southeastern roads. They charged that the dispute "should have been settled long ago if the union leaders had shown any real desire to negotiate a settlement."

The management representatives went on to point out that the railroads had accepted the report of the emergency board which passed on the controversy, and had offered later to settle on the basis of the so-called Steelman

formula which was accepted by the Switchmen's Union of North America. That formula gives yardmen an increase of 23 cents per hour, and provides for adjustments to compensate for changes in the cost of living.

The dispute here involved arises out of the demand of the B.R.T. and Order of Railway Conductors for a 40-hr. week with no loss in take-home pay for their yardmen members. That would call for a raise of about 31 cents an hour. The emergency board recommended 18 cents.

"Twenty-three cents an hour," Messrs. Horning, Loomis and Mackay said, "is the largest increase ever granted by any industry and would bring the average postwar increase in hourly earnings of railroad yardmen to a total of 73 cents. This compares with an average increase in the earnings of employees in manufacturing industries of about 48 cents."

"Ops" Disputes Settled

Settlement of pending wage and rules disputes involving railroad operating employees, who are members of the "big four" brotherhoods, was announced by Dr. John R. Steelman, assistant to President Truman, on the afternoon of December 21 as this issue went to press. The settlement came after Dr. Steelman had held representatives of the unions and management in an all-night conference at the White House.

It provides for wage increases of 23 cents per hour for yardmen and 5 cents per hour for road men, retroactive to October 1. It further provides for an additional two cents per hour for yardmen and an additional five cents per hour for road men, effective January 1, 1951. The settlement will be embodied in three-year contracts which will have provision for adjustment on the basis of changes in the cost of living. In the latter connection, there will be arrangements for further negotiations on or after July 1, 1952, if employees in industry generally have obtained so-called "improvement" raises. As to the 40-hr. week, the demand for it was waived until January 1, 1952, after which the issue will be determined on the basis of the manpower situation.

The carrier spokesmen also noted that part of the delay in settling the case was due to the fact that representatives of the B.R.T. "took seven weeks off to attend a convention of that organization at Miami, Fla." And, as their statement put it, the management representatives were "frankly skeptical of the union claim that the walkout at Chicago and at other railroad centers was an unauthorized wildcat strike." The statement added that Messrs. Horning, Loomis and Mackay had said that "the brotherhood had been spreading inflammatory propaganda for weeks," and that "the walkout was too well organized and the activities of local brotherhood leaders too conspicuous to lend credence to the claim that it was not a planned strike."

The management representatives' statement closed with the assertion that "the only reason why the case was not settled long ago was the arrogant insistence of the union leaders that they be the sole judge as to the merits of their claims regardless of all other considerations."

Union Statement

On the following day, December 15, the chief executives of the four operating brotherhoods issued a statement to say that they were in Washington with their committees "on 24-hour call to meet and negotiate with anyone who is able to make a realistic contribution toward settlement of the wage and rules dispute with the nation's railroads." The labor leaders who joined in the statement were President W. P. Kennedy of the B.R.T., President R. O. Hughes of the O.R.C., Grand Chief Engineer J. P. Shields of the Brotherhood of Locomotive Engineers, and President D. B. Robertson of the Brotherhood of Locomotive Firemen & Enginemen. Though not involved in the strike threat which brought government operation, the latter three unions also have wage and rules cases pending.

As to the "wildcat" strikes of last week, the statement quoted President Kennedy of the B.R.T. as follows: "Not only are we endeavoring to halt these unauthorized strikes, but also we are exerting all efforts at our command to prevent them from spreading."

The statement went on to say that Mr. Kennedy was joined by the other three brotherhood executives in revealing that the railroads "have not budged from their position taken last August," and in characterizing that position as one which "offers less than second-class treatment to operating employees who have had no wage increase since 1948."

"Constant delays," the labor leaders continued, "have only complicated this

Transport Comes Under New Mobilization Office

Activities of the government in the field of transportation fall within the jurisdiction of the overall Office of Defense Mobilization which President Truman created December 16 when he issued his proclamation declaring a national emergency. Meanwhile, however, the order creating O. D. M. also provided that agencies functioning in the covered fields, such as the Defense Transport Administration in the transport field, should continue their usual operations—subject to the "direction and control" of the O. D. M. director.

For that position, President Truman selected Charles E. Wilson, who resigned from the presidency of the General Electric Company to accept it. O. D. M.'s overall control extends to production, procurement, manpower, and stabilization activities of the government, as well as to transport activities.

entire situation. Even Dr. Steelman has been unable to devote any large part of his time toward seeking a settlement because of the magnitude of important duties to which he must attend. We have suggested that a top drawer, widely respected mediator be appointed as Dr. Steelman's representative, since Dr. Steelman is busily occupied with other administrative concerns and also since he has confessed to us that he is 'stumped' in his efforts to persuade the railroads to give the operating employees wages, hours and working conditions comparable to those granted to all other railroad employees, as well as employees of other major industries."

"Epidemic" Lasts Four Days

The "sickness" which first appeared among B.R.T. members at Chicago early on the morning of December 13 spread rapidly to switchmen at St. Louis, Mo., and Washington, D. C., with the result that freight service through those important gateway cities was virtually at a standstill. Minor "epidemics" also were reported at Dallas, Tex., Minneapolis, Minn., and St. Paul, Knoxville, Tenn., Pittsburgh, Pa., Milwaukee, Wis., Peoria, Ill., and Springfield, Battle Creek, Mich., and Durand.

Passenger travel was not seriously affected by the walkouts at Chicago and St. Louis. Although some delays were unavoidable, principal passenger services were maintained by keeping the trains in units as they were being operated at the time the walkout began. This action minimized handling at terminals, but it did not provide any flexibility of consist to cope with the growing holiday traffic, and it caused some confusion for passengers on transcontinental and other through cars who found it necessary to make transfers at these gateway points. In Chicago, a few of the roads took their

passenger trains out of the switching district for makeup, but for the most part the "unit" system proved adequate for the emergency so far as the handling of passengers was concerned.

At the height of the walkout, a total of 17 Chicago roads were directly affected, while those remaining were hampered by the lack of freight interchange. At St. Louis, in addition to the Terminal Railroad Association, 13 carriers were reported as affected.

On December 14 the Post Office Department placed an embargo on parcel post and bulk mail in the three major centers affected and restricted movement of mail between 15 midwestern and northeastern states. Express shipments were similarly embargoed, as loaded head-end cars accumulated in terminals and on sidings just outside the crippled areas.

The strike at Washington affected operations at the passenger terminal there and at Potomac Yards in nearby Alexandria, Va. While all switchmen at the passenger terminal joined the walkout, service was maintained "without shifting a car," as Terminal Manager S. Kerl put it. Some trains were terminated at points outside Washington, such as Silver Spring, Md., and Baltimore, with shuttle-train or bus service provided between such points and the terminal. In other cases, it was found possible to bring trains into and out of the terminal without switching. Operations at the terminal were again on a normal basis by the first of the week.

Contempt Citation Sought

At the Potomac Yards, the walkout of switchmen was virtually complete and it was necessary to issue an embargo against movements to the yard. The yard operations, like those of the terminal, were back on a normal basis the first of this week.

In an evening session on December 15, Federal District Judge Michael L. Igoe, Chicago, accepted a petition from U. S. Attorney Otto Kerner, Jr., calling for criminal and civil contempt citations against B.R.T. President Kennedy and various national and local officers of the organization. The defendants were charged with "knowingly, willfully, wrongfully and deliberately disobeying the terms of a restraining order" issued on December 13 by Federal District Judge William J. Campbell directing the switchmen to return to their work. The defendants were required to appear in court at Chicago on December 18 and again on December 21. On December 19, however, Judge Igoe, upon agreement by attorneys for both the government and the brotherhood, postponed the expiration date of the temporary restraining order from December 23 to January 19, and postponed the preliminary injunction hearing and the contempt petition hearing until January 11.

Widespread "Recovery"

On December 16 the back-to-work movement became general in all cities, although it was problematical whether

the radio talk of President Truman on the 15th—in which he stated that the strike endangered the security of the nation—or the legal action taken at Chicago, or the "pleas" of President Kennedy for a return to work by his trainmen, brought about the mass "recovery."

Most industries returned to normal production on that date although many of the estimated eight to ten thousand industrial workers laid off in the Chicago metropolitan area were not called back until December 18.

As a consequence of the back to work movement, it was expected that U. S. Attorney Kerner would ask Judge Igoe to dismiss the contempt case, although at *Railway Age* press time the matter had merely been postponed for further hearing on January 11. There was a brief flare-up of "illness" among trainmen at Toledo, Ohio, on December 18, affecting freight service of the Baltimore & Ohio, the Detroit & Toledo Shore Line and the New York, Chicago & St. Louis. Before the day was out, however, the walkout "fizzled" and the switchmen were back at work.

L. I. Told to Install Train-Control System

I.C.C. report gives road 30 days to consider compliance

The Interstate Commerce Commission has recommended that the Long Island extend its automatic cab-signal system to the line on which the November 22 accident occurred, and that the road also install an automatic train-control system on the same line and on other heavy-traffic lines where cab signals are already in operation. The recommendations were made in the commission's report on its investigation of the accident.

They were followed by a statement which asserted that consideration would be given to "the institution of further proceedings under section 25 of the Interstate Commerce Act," unless the L.I. trustees advise within 30 days of the report's date—December 18—that the recommendations will be complied with. Section 25 gives the commission authority to require railroads to install signaling and train-control facilities. Meanwhile, the report also said that "an automatic train stop of the tripper type, or any other automatic train stop of the intermittent type, probably would not have prevented the accident."

As reported in *Railway Age* of December 2, page 72, the accident was a rear-end collision between two commuter trains at Metropolitan avenue, Kew Gardens, N. Y. Seventy-eight persons were killed and 363 injured. The commission's report was by Commissioner Patterson, and the investigation out of which it came was a formal pro-



AS AN ADDED SAFETY PRECAUTION, the Long Island is equipping the headlights of 640 electric multiple-unit motor cars with lever operated red lenses which can be moved into position over the rear headlight of any stopped train to cast a red warning beam more than a mile to the rear. The new lens, being tested here by Palmer S. Mock, superintendent of motive power, and Irving C. Potter, conductor, was devised by Frank H. Simon, superintendent of transportation of the New York City Transit System

ceeding, docketed as Ex Parte No. 176. The investigation included public hearings at New York, which were also covered in the issue of December 2.

As had been anticipated, the report's finding as to the cause of the accident was that it resulted from "failure to operate the following train in accordance with a signal indication." The engineer of the following train, No. 174, was killed in the collision.

Possible Cause

The commission suggested that he may have accepted as his own a signal displayed for the preceding train, No. 780, not seeing the latter until it was too late to stop. Both trains were eastbound out of New York. The signals involved were Signal C at the beginning of the block in which the collision occurred, and Signal 114R at the beginning of the next block.

Surviving members of No. 174's crew said that the train was stopped at Signal C in compliance with a stop-and-proceed indication. That indication limited the train's speed to 15 m.p.h. when it entered the block after making the required stop; and the indication applied throughout the block.

No. 174's conductor said that the speed of the train was low when it entered the block, but there was a "noticeable increase in speed" when the train was about 1,960 ft. short of the point of collision. Signal 114R is located on a signal bridge which spans the four-track line, and the aspect can

be seen from the operating compartment of an east-bound car at any point between Signal C and Signal 114R.

"The indication of Signal 114R," the commission's report said, "changed to a more favorable one after No. 174 passed Signal C, and from the manner in which the train was controlled it appears probable that the engineer observed the aspect of Signal 114R when the indication changed from Restricting to Approach, assumed that the train immediately preceding No. 174 had cleared the block of that signal, and immediately increased the speed of his train. Apparently he made an emergency application of the brakes when he first saw the preceding train, but there was insufficient distance in which materially to reduce the speed before the collision occurred."

After the accident occurred, the brakes on both trains were tested, and they functioned properly. Tests of the signal system showed that it also functioned properly.

With respect to its recommendation that the Long Island's automatic cab-signal system be extended to the line involved, the commission noted that the motor cars operating over the line are already equipped; so "it would be necessary only to install track equipment." The line is between signal tower "Harold" in Long Island City and Hillside, 1.4 mi. east of Jamaica.

As indicated above, the recommendations also call for installation of an automatic train-control system on this line and on other lines where cab signals are already in operation. The latter, totaling about 44 mi. in length, are the Port Washington line, and the line between Hillside and Babylon.

In leading up to its recommenda-

tions, the commission recalled the February 17 collision between two L. I. trains at Rockville Centre, where 31 persons were killed and 158 injured (see *Railway Age* of February 25, page 56, and April 1, page 63). The line on which this accident occurred was equipped with automatic block-signal and cab-signal systems, the report noted. As to the additional protection provided by an automatic train-control system, it had this to say:

"While a cab-signal system superimposed upon an automatic block signal system provides a substantial increase in protection as compared with a system using roadway signals only, the cab-signal system does not automatically and continuously enforce compliance with the speed restrictions imposed by restrictive signal indications . . .

"Automatic train-control systems which continuously enforce prescribed speed limits have been developed and are used on other railroads. If such an automatic train-control system had been in use on this line, in both of these cases the speed of the trains involved would have been automatically restricted to the prescribed limit and the accidents either would have been averted or their severity greatly reduced. Therefore, as a means of providing for the maximum protection of the dense traffic on this line, steps should at once be taken by the carrier to install an automatic train-control system which automatically and continuously will enforce compliance with the requirements of automatic block-signal and cab-signal indications."

The train-control system which the recommendation calls for would be one which will "automatically and continuously enforce a speed restriction of not exceeding 12 m.p.h. for trains when entering and while proceeding through a block occupied by a preceding or opposing train."

1951's First-Quarter Expenditures Will Be 43.6 Per Cent Above Same Period of 1950

Latest estimates summarized in I.C.C. bureau's "Monthly Comment," which also has articles on transportation equipment, changes in motive power and passenger-mile revenues

Gross capital expenditures of Class I roads for the first quarter of 1951 are expected to be 43.6 per cent higher than in the same period of 1950. This forecast was contained in the December issue of the "Monthly Comment," publication of the Interstate Commerce Commission's Bureau of Transport Economics and Statistics.

With estimates from all but four Class I roads, first-quarter expenditures for 1951 are placed at \$305.4 million, as compared with \$212.6 million this year. Expenditures for equipment are expected to go up 49.2 per cent, while those for road are due to increase 27 per cent. (The four roads that did not submit estimates made total expenditures of \$15.5 million in the third quarter of 1950.)

This article on capital expenditures was included in the "Comment" along with others on transportation equipment, changes in railway motive power, and the passenger-mile revenue of railroads, motor carriers, and air lines.

During the first nine months of 1950 Class I roads reported gross capital expenditures of \$768.1 million for road and equipment, the I.C.C. bureau said. Anticipated expenditures for the fourth quarter, totaling \$296.8 million, will bring the year's total to approximately \$1,065 million. On this basis 1950 expenditures will be about 17.7 per cent below 1949.

While 1950 expenditures for both road and equipment are thus expected to fall below the 1949 level, the improvement that is foreseen for 1951 is

reflected in the last quarter of 1950. The same Class I roads that furnished the 1951 estimates have anticipated expenditures of \$83.3 million for road and \$213.5 million for equipment during the final quarter this year. The I.C.C. bureau said both figures are "somewhat above" the level of actual expenditures in the same quarter of 1949.

Discussing 1950-51 figures for equipment expenditures the bureau said they "have no doubt been affected" by plans of some roads to lease equipment from insurance companies on a monthly rental basis rather than to purchase it. Seven roads have signed contracts covering 16,400 freight cars, the bureau said, and it added that rental payments for these cars will total \$103,034,145 over the period of the 15-year leases. In addition, three roads have signed similar lease agreements for 206 diesel-electric locomotives, the bureau said. Rental payments under the latter agreements will aggregate \$34,998,756 in 15 years.

Truck Sales Increase

The transportation equipment article showed that while 113,071 new freight cars were on order as of November 1, new car installations in the first 10 months of 1950 were "less than half" those installed in the same period of 1949. There were 31,721 new cars placed in service through October, 1950, compared to 77,618 in 1949, a decrease of 59.1 per cent. Freight car retirements between the two periods were down only 3.1 per cent.

Meanwhile, truck sales increased 14.6 per cent in 1950 over the 1949 period, with the largest increases occurring in the heavier classes of trucks. For example, there was a 103 per cent increase in sale of trucks in the 19,501-26,000-lb. weight class, and a 78.7 per cent increase in sale of trucks with gross weight over 26,000 lb. Noting this increase in heavy-duty vehicles, the I.C.C. bureau said it "suggests preparation for expected increases" in the traffic of these carriers.

The railroads did make gains in 1950 in their diesel-electric locomotive installations. In the first 10 months this year they placed 1,915 new diesels in service, a 25.7 per cent gain over the 1,524 installed in the comparable 1949 period. An additional 1,496 diesels were on order November 1. The continuing decline in use of steam power was indicated by the fact that only nine new steam locomotives were placed in service the first 10 months of 1950, while retirements amounted to 3,243.

Turning next to its discussion of railway motive power, the bureau made comparisons between December 31, 1949, and 1940, as to number of locomotive units in service and tractive efforts of these units. In the nine-year period there was a 2.5 per cent decrease in number of units of all types, but at the same time total tractive effort increased 7.9 per cent.

The greatest change in any single

type of locomotive occurred in the diesel-electrics, where the number of units increased from 797 at the end of 1940 to 10,888 at the close of 1949. Reflecting this increase, total diesel tractive effort went up more than 1,300 per cent during the period.

Steam locomotives, while they had decreased by more than one-fourth since 1940, still outnumbered diesels by a wide margin. At the end of 1949 they accounted for 28,964 out of the total of 40,691 locomotives of all types then in service on Class I roads.

Passenger Revenues

Over the nine-year period there was also an increase in the average tractive effort of each of the various types of locomotive units. This average increased 10.7 per cent in the case of steam locomotives, but only 2.9 per cent in the case of diesel-electric units. The I.C.C. bureau said the improvement in the steam locomotive average resulted from the installation of many new locomotives in higher tractive effort brackets and the retirement of many old locomotives with relatively lower rated efficiency.

The article on revenue per passenger-mile — comparing Class I railroads, scheduled air lines, and motor carriers — showed that averaged passenger-mile revenues for each type of carrier were higher in 1949 than in 1942. Increases ranged from 36.2 per cent for rail coach revenue to 9.1 per cent for the air lines.

This general increase since 1942 in average passenger-mile revenues has narrowed the differences between air and rail averages. The air line average revenue per passenger-mile in 1942 was 5.28 cents, as compared to 1.77 cents for railroad coaches. The comparable figures for 1949 were 5.76 for the air lines and 2.41 for the coaches.

Between 1942 and 1949 the average passenger-mile revenue of intercity motor carriers increased 13.3 per cent. Comparing bus travel with rail coach travel on a cents per passenger-mile basis, the I.C.C. bureau found the spread between the two had increased since 1942. In that year the average revenue per passenger mile for bus travel was 1.65 cents, compared to 1.77, and in 1949 the bus average was 1.87 cents, compared to 2.41.

Operating Ratios

Another article in the issue compared operating ratios of Class I roads for the past 10 years. It pointed up the fact that the ratio of 68.6 per cent reported in October, 1950, was the lowest since June 1945, when the ratio was 66 percent. The comparison also showed that regional ratios for October were the lowest since October, 1944. The bureau said that October, 1950, ratios in the Eastern district and Pocahontas region were not as favorable as in pre-war October 1941, but in the Southern region and Western district they were lower than in that earlier year.

Railroad Executives Heard In Mail-Pay Case

Murphy, Metzman, Tilford testify on proposed increase

The railroad case for increased rates on mail, based generally on "radically increased costs," was presented this week as new hearings in the mail pay case (No. 9200) were opened in Washington, D. C. The hearings, before Interstate Commerce Commissioner Mitchell and Examiner Mullen, are on that phase of the case having to do with future rates—i.e., those which are expected to apply after January 1, 1951.

H. C. Murphy, president, Chicago, Burlington & Quincy; Gustav Metzman, president, New York Central; John E. Tilford, president of the Louisville & Nashville; and Timothy G. Sughrue, executive vice-president, Boston & Maine, appeared on behalf of roads in the West, East, South, and New England. They urged that pending railroad requests for mail pay increases be approved by the commission.

During the hearings the railroads also offered in evidence their new scale of proposed rates for transporting mail. The rates would apply on all Class I roads except New England lines and the Spokane International which was excluded from railroad cost studies "because it is a higher-cost road." It is understood the proposed scale would increase the revenue on mail by "somewhat more" than the 95 per cent which the railroads have already requested.

The pending petition for a 95 per cent increase dates from February 18, 1947.

The original petition sought a 45 per cent increase but subsequent amendments raised it to 95 per cent. An agreement already approved by the commission has settled the so-called retroactive phase of the case by giving the roads an increase of about 49 per cent for the period from 1947 through 1950. (See *Railway Age* of December 16, 1950.)

The hearings that opened this week were thus confined to the rates-for-the-future phase of the case. Until this phase is settled the roads will continue to receive the 25 per cent interim increase granted by the commission effective February 19, 1947. Meanwhile, both the Post Office Department and the railroads have agreed not to use the basis for settling the retroactive phase of the case as evidence in the future-rates proceeding.

Mr. Murphy of the C.B.&Q., representing roads in the West, was the first railroad witness at the opening session on Monday. He said the railroads are seeking "only such reasonable increases as are justified by increased costs," and added that substantial increases over present rates are justified because of the quality and character of the mail service being performed by the railroads, and the

greatly increased costs in rendering it.

"Conditions today are so radically different, pricewise, than they were in 1928, that rates based on 1928 prices are substantially below the actual cost of handling," Mr. Murphy declared. Aside from the 25 per cent interim increase granted in 1947 the last mail pay increase was in 1928. Mr. Murphy also discussed the "preferred" treatment the railroads give the mail traffic, and said the line-haul cost of handling mail exceeds the line-haul cost of regular freight because it moves on faster passenger-train schedules and in better and heavier cars.

Mr. Metzman said the request for increased mail pay are a part of the postwar price adjustment made necessary by tremendous increases in wages and in the prices of materials and supplies. Passenger-service deficits are especially serious on the N.Y.C. and other passenger-carrying roads of the east, he declared. The transportation of mail "is responsible for a considerable part of this deficit," he said.

Efforts to cut the passenger-service deficit on eastern roads have included increases in milk and express rates, improved passenger service, and increased passenger fares, Mr. Metzman said. He added that that portion of the head-end deficit assignable to mail service "should be borne by that service."

Mr. Tilford continued the railroad presentations on Tuesday when he appeared on behalf of roads in the south to testify that present pay to the railroads for transporting mail and parcel post falls far short of covering the increased cost of performing this service. Every railroad in the southern region had a passenger-service deficit in 1949, Mr. Tilford declared. He said the roads had to spend \$1.48 for every dollar of passenger train revenue received.

"The recent agreement between the postmaster general and the railroads states that provisions for payment for storage car and lesser unit storage cars on a round-trip basis shall be eliminated, and rates shall be fixed for loaded movements which shall include proper compensation for the empty return movement of cars," Mr. Tilford said. He went on to say that while this method of assessing charges is like that used by the Railway Express Agency and by railroads in freight service, "many added services" make the handling of mail much more costly.

Arne C. Wiprud, associate solicitor of the Post Office Department and counsel for the department in this case, questioned both Mr. Murphy and Mr. Tilford during cross-examination as to their statement that mail receives preferred or special treatment by the railroads. Mr. Wiprud's questions were presumably drawn to show that other forms of traffic, notably express shipments, also receive special treatment.

Mr. Sughrue of the B&M., representing New England roads, made a presentation in which he said transportation difficulties in New England

have made necessary mail rates approximately 35 per cent higher than those of railroads in the rest of the country. Short hauls, congested terminals, many hills and rivers, and heavy snowfall were cited as operating difficulties these roads face. He said they have received a special differential for many years and that continuance of the differential "is fully justified."

The several witnesses presented by the Post Office Department included postal inspectors and supervisors who entered statements and exhibits on mail handling and facilities at various railroad terminals.

John M. Redding, assistant postmaster general in charge of transportation, also testified. Mr. Redding said the department is contemplating taking "a fresh look at the possibility of handling more mail by motor carriers."

The cost of moving mail by truck is substantially lower than present rail rates, particularly for short hauls, Mr. Redding declared. He said the department has surveyed a number of areas, including the New England states, and the possibilities of motor transportation cannot be ignored. He added that "medieval" mail-handling methods at many railroad stations delay the mail and result in excessive loading costs.

At the conclusion of the hearings Wednesday afternoon, Commissioner Mitchell set February 6, 1951, as the date on which they will be resumed. At that time witnesses will be called back for cross-examination and rebuttal statements will be entered. Meanwhile, on January 8, 1951, the department is to furnish the railroads with its proposed rate scale for the transportation of mail. At the same time, the roads will turn over to the department their proposed scale for New England lines and for those short line roads which have differentials.

Senate Confirms Cross For New I.C.C. Term

The Senate on December 14 confirmed President Truman's nomination of Interstate Commerce Commissioner Hugh W. Cross for a new seven-year term expiring December 31, 1957. The nomination had been reported favorably from the Senate committee on interstate and foreign commerce on December 13.

Commissioner Cross is a former lieutenant governor of Illinois. He has been a member of the commission since April, 1949, when he succeeded the late George M. Barnard.

I.C.C. Won't Reopen Ex-Lake Grain Case

The Interstate Commerce Commission has denied petitions which sought reopening and reconsideration of the case wherein the commission condemned railroad tariffs that proposed to give Albany, N. Y., New York City, Boston, Mass., and Portland, Me., the Philadelphia-Baltimore basis of export

rates on ex-lake grain from Buffalo, N. Y., and other Great Lakes ports.

The denied petitions included those of the Secretary of Agriculture, the Port of Boston Authority, the Port of New York Authority, and the respondent railroads. The proceeding was docketed as I.S. No. 5641. (See *Railway Age* of June 3, page 47.)

Freight Car Loadings

Loadings of revenue freight in the week ended December 16 totaled 772,902 cars, the Association of American Railroads announced on December 21. This was an increase of 6,159 cars, or 1.0 per cent, compared with the previous week; an increase of 133,174 cars, or 20.8 per cent, compared with the corresponding week last year; and an increase of 18,350 cars, or 2.4 per cent, compared with the equivalent 1948 week.

Loadings of revenue freight for the week ended December 9 totaled 766,743 cars, and the summary for that week, as compiled by the Car Service Division, A.R.R., follows:

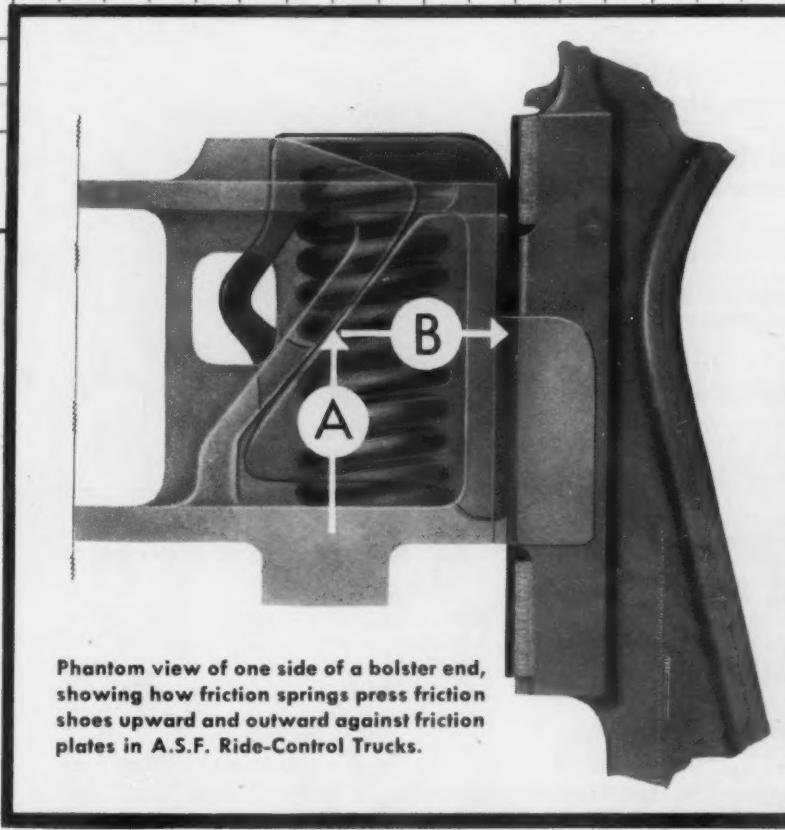
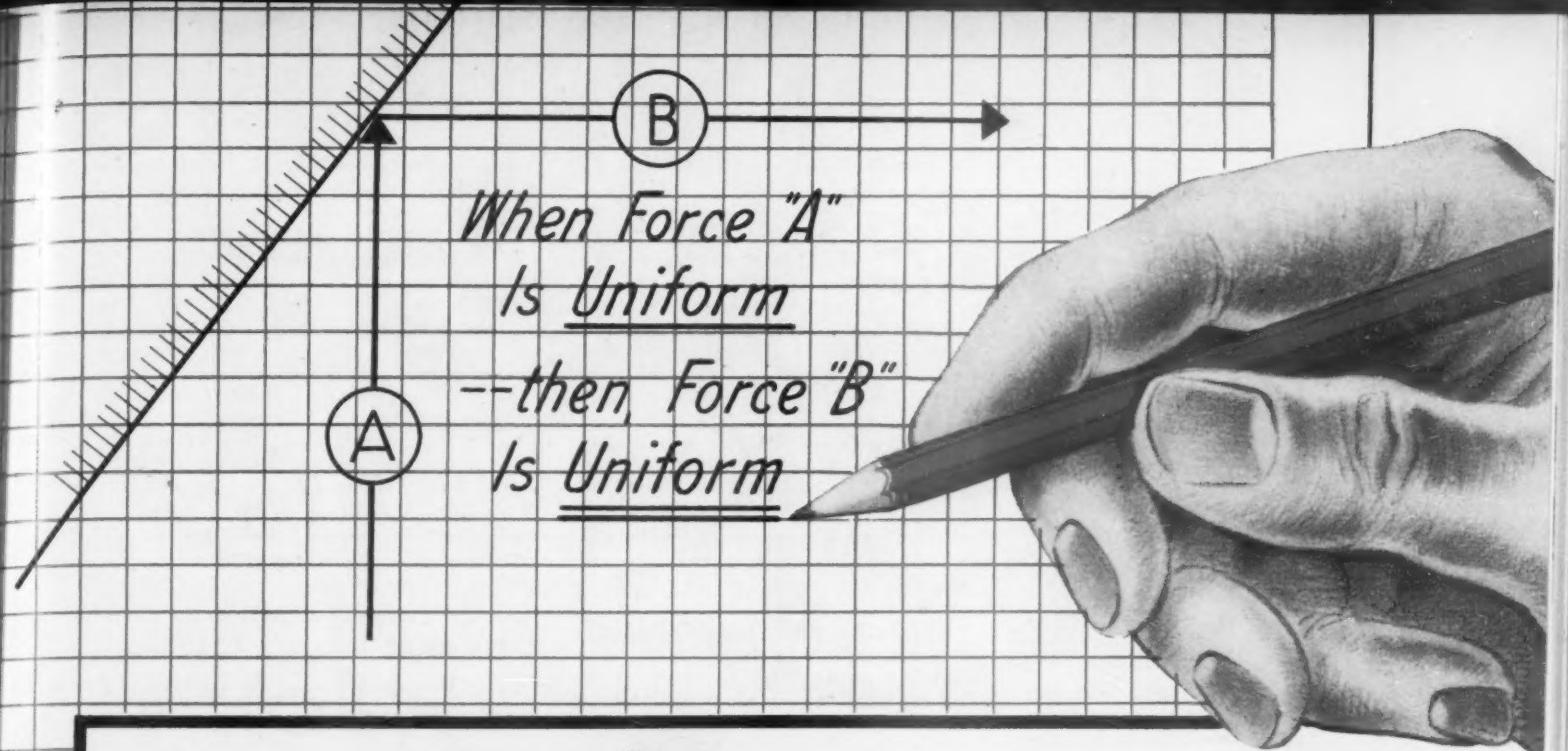
REVENUE FREIGHT CAR LOADINGS For the week ended Saturday, December 9			
District	1950	1949	1948
Eastern	136,090	117,974	144,402
Allegheny	153,671	133,478	163,086
Pocahontas	59,654	47,936	65,849
Southern	133,475	118,598	129,972
Northwestern ..	89,068	74,838	83,913
Central Western ..	130,663	114,270	125,393
Southwestern ..	64,122	61,711	70,298
Total Western Districts	283,833	250,819	279,604
Total All Roads	766,743	668,825	782,913
Commodities:			
Grain and grain products	51,056	47,620	53,277
Livestock	11,152	11,202	13,723
Coal	161,257	136,017	165,231
Coke	15,853	11,786	15,343
Forest products	44,472	41,598	40,836
Ore	22,170	12,134	16,225
Merchandise I.C.I.	80,880	81,949	98,176
Miscellaneous	379,903	326,519	380,102
December 9	766,743	668,825	782,913
December 2	739,922	693,923	804,172
November 25	701,421	664,555	722,936
November 18	837,065	758,972	858,089
November 11	839,612	635,823	871,679
Cumulative total 49 weeks ... 36,777,041 34,152,636 40,770,967			

In Canada.—Carloadings for the week ended December 9 totaled 78,781 cars, compared with 81,434 cars for the previous week, and 75,286 cars for the corresponding week last year, according to the Dominion Bureau of Statistics.

	Revenue Cars	Total Cars	Cars Rec'd from Loaded Connections
Totals for Canada:			
December 9, 1950 ..	78,781	34,644	
December 10, 1949 ..	75,286	30,974	
Cumulative totals for Canada:			
December 9, 1950 ..	3,697,332	1,549,539	
December 10, 1949 ..	3,720,246	1,512,806	

November Gross Revenue 18.1% Above Last Year

From preliminary reports of 82 Class I railroads, representing 81.5 per cent of total operating revenues, the Association of American Railroads has estimated that November gross amounted to \$677,887,831, an increase of 18.1 per cent above the \$574,127,702 re-



Here's Why A-S-F RIDE-CONTROL TRUCKS have Uniform Friction Control

- Friction springs, in Ride-Control Trucks, do just one thing: press friction shoes upward and outward against the stationary friction plates. Thus, they maintain constant, *uniform* pressure against a fixed resistance.

FRICITION SPRINGS DON'T FLEX

These pre-loaded springs *can't fatigue*; don't take a permanent "set." They expand only to equalize pressure, or when wear permits shoes to move higher—a very slow process in Ride-Control Trucks because shoes are tough, hardened cast steel.

SHOES VIRTUALLY NEVER WEAR OUT

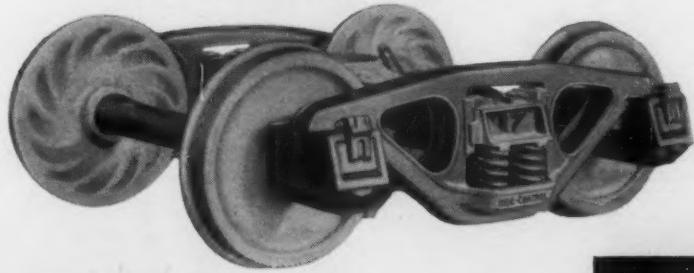
A truck-set of shoes recently removed for inspection (after more than 80,000 miles) showed only $1/32"$ of friction surface wear. This means that initial friction spring pressure remained practically constant throughout two years of constant use.

RIDE-CONTROL TRUCKS STAY YOUNG

Non-flexing springs + long-wearing shoes = uniform friction control . . . and welcome, low-maintenance, *like-new* performance as mileages mount on smooth-rolling Ride-Control Trucks.

A-S-F Ride-Control® TRUCK

CONSTANT FRICTION CONTROL
LONG SPRING TRAVEL



AMERICAN STEEL FOUNDRIES

MINT MARK OF FINE PRODUCTS

ported for the same 1949 month. Estimated November freight revenue was \$568,372,648, as compared with November, 1949's \$475,359,628, an increase of 19.6 per cent. Estimated passenger revenue was \$55,142,281, as compared with \$53,731,304, an increase of 2.6 per cent. All other revenue was up 20.7 per cent—\$54,372,902 as compared with \$45,036,770.

Santa Fe Finds It Owns Vast Uranium Deposits

Seeking to learn whether the extent of uranium ore deposits found on some of its New Mexican property justifies mining (See *Railway Age* of December 16, page 55), the Atchison, Topeka & Santa Fe has begun a series of drilling tests which will cost between \$50,000 and \$75,000. The ore was actually discovered by a Navajo Indian who had previously glimpsed similar ore samples in possession of some Colorado prospectors, from whom he learned of its value. The ore was found on a total of five sections of land owned by the railroad, but the drilling tests are being confined for the present to one particular section where early finds are the largest.

President Fred G. Gurley told newsmen in a special press conference on December 14 that Section 19, where the tests will be conducted, is about three miles from the road's main line at a point some 65 miles east of Gallup. Mr. Gurley said that "there is no question that there is a terrific amount of ore out there," but he added that the railroad, as yet, does not know exactly what it has. The railroad first became interested in the deposit during September of this year and its engineering forces have since been making some preliminary excavations on which to base the drilling tests. The first test will cover some 90 acres of Section 19 and the road expects to have the results of this work in about three months.

When asked if the Santa Fe had any plans for exploiting the discovery, Mr. Gurley replied: "Our first job is to find out what's there—then we'll decide what to do."

B. & O. Installs Three Strata-Dome Sleepers

The first strata-dome sleeping cars on any railroad in the east were placed in service on two Baltimore & Ohio

trains on December 20. Of the three units, built by the Budd Company, two were placed in service on the "Capitol Limited," between Washington, D. C., and Chicago. The third operated on the "Shennadoah," between Washington and Chicago, making the westbound trip one day, and the eastbound trip on the succeeding day.

Each of the cars has a glass-roofed dome with 24 seats on an upper level. On its lower level, each car has five roomettes, one single bedroom, and three large double drawing rooms. Each double drawing room is fitted with three arm chairs for daytime use and twin beds for sleeping.

I.C.C. Issues Valuation Data as of January 1, 1950

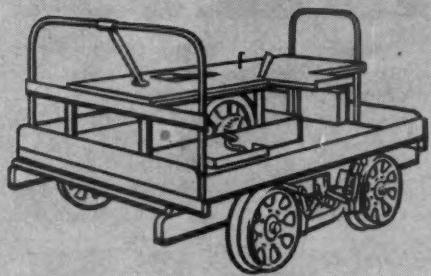
The Interstate Commerce Commission has made public a statement prepared by its Bureau of Valuation to show "elements of value of property used in common-carrier service by Class I line-haul railways as of January 1, 1950." The statement has a summary table, reproduced herewith, and figures by individual roads.

It also includes an explanation of

ELEMENTS OF VALUE OF PROPERTY USED IN COMMON-CARRIER SERVICE, JANUARY 1, 1950
CLASS I LINE-HAUL RAILWAYS

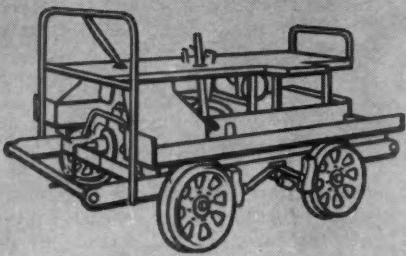
Location	Cost of reproduction, except land and rights		Original cost except land and rights	Present value of land and rights	Working capital including material and supplies
	New	Less depreciation			
EASTERN DISTRICT:					
New England Region	Road Equip.	\$ 1,135,715,465 309,654,648	\$ 777,451,471 166,061,548	\$ 700,728,041 252,043,658	
	Total	1,445,370,113	943,513,019	952,771,699	\$ 123,536,292
Great Lakes Region	Road Equip.	4,194,897,558 1,896,638,793	2,854,340,398 976,597,156	2,674,507,729 1,581,136,773	
	Total	6,091,536,351	3,830,937,354	4,255,644,502	428,276,709
Central Eastern Region	Road Equip.	5,291,484,721 2,391,808,260	3,588,349,350 1,140,513,577	3,321,850,239 1,771,682,592	
	Total	7,683,292,981	4,728,862,927	5,093,532,831	486,836,202
TOTAL EASTERN DISTRICT	Road Equip.	10,622,097,744 4,598,101,701	7,220,141,219 2,283,172,281	6,697,086,009 3,604,863,023	1,038,649,203
	Total	15,220,199,445	9,503,313,500	10,301,949,032	240,409,200
SOUTHERN DISTRICT:					
Pocahontas Region	Road Equip.	1,457,721,380 806,718,084	1,070,360,532 434,430,735	969,371,656 693,979,002	
	Total	2,264,439,464	1,504,791,267	1,663,350,658	56,217,445
Southern Region	Road Equip.	3,698,271,495 1,470,718,768	2,618,784,729 788,282,370	2,311,761,532 1,261,842,255	
	Total	5,168,990,263	3,407,067,099	3,573,603,787	225,251,600
TOTAL SOUTHERN DISTRICT	Road Equip.	5,155,992,875 2,277,436,852	3,689,145,261 1,222,713,105	3,281,133,188 1,955,821,257	281,469,045
	Total	7,433,429,727	4,911,858,366	5,236,954,445	124,474,300
WESTERN DISTRICT:					
Northwestern Region	Road Equip.	4,051,947,821 1,320,936,413	2,821,422,049 691,442,649	2,467,530,770 1,092,946,818	
	Total	5,372,884,234	3,512,864,698	3,560,477,588	209,835,888
Central Western Region	Road Equip.	5,252,541,284 2,108,800,539	3,702,067,247 1,193,568,222	3,307,643,611 1,787,437,410	
	Total	7,361,341,823	4,895,635,469	5,095,081,021	303,814,002
Southwestern Region	Road Equip.	2,103,536,155 712,095,540	1,458,698,523 376,939,127	1,353,293,526 610,110,440	
	Total	2,815,631,695	1,835,637,650	1,963,403,966	118,606,345
TOTAL WESTERN DISTRICT	Road Equip.	11,408,025,260 4,141,832,492	7,982,187,819 2,261,949,998	7,128,467,907 3,490,494,668	49,399,300
	Total	15,549,857,752	10,244,137,817	10,618,962,575	632,256,235
GRAND TOTAL, ALL DISTRICTS ..	Road Equip.	\$27,186,115,879 11,017,371,045	\$18,891,474,299 5,767,835,384	\$17,106,687,104 9,051,178,948	\$1,952,374,483
	Total	\$38,203,486,924	\$24,659,309,683	\$26,157,866,052	\$658,039,200

Compiled by the Bureau of Valuation, Interstate Commerce Commission.



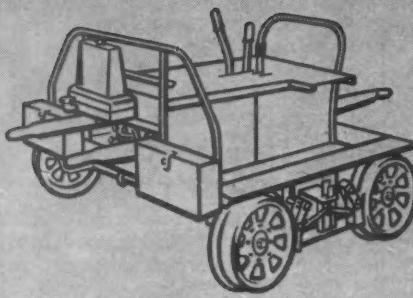
Model 44-B

Standard section car on many roads; powered to haul trailers with men, tools and/or ties.



Model 40-B

Heavy-duty section car; four speeds forward and reverse.



Model 57-D

One-man inspection car; light, fast, dependable.

The longer the ride The better you'll like 'em...

Rail cars built the way railroad men want them . . . with ample power, more convenience and added comfort that make short rides a snap, long rides a pleasure . . . Fairbanks-Morse rail cars . . . first on the roads, and still first! Fairbanks, Morse & Co., Chicago 5, Ill.

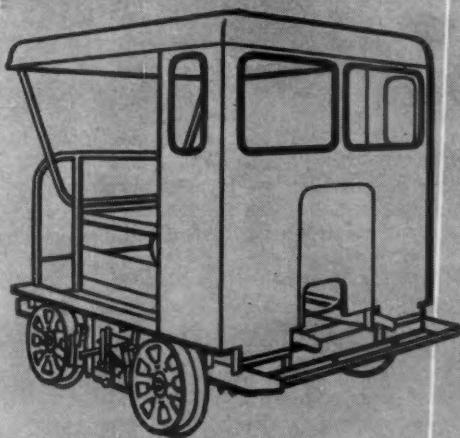


When it comes to railroad equipment . . .

FAIRBANKS-MORSE

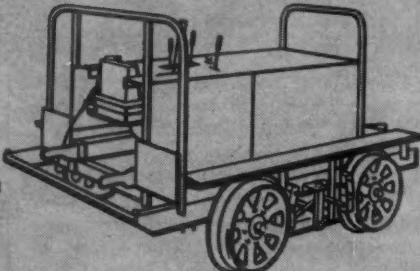
A name worth remembering

DIESEL LOCOMOTIVES • DIESEL ENGINES • PUMPS • SCALES • MOTORS • GENERATORS
STOKERS • RAILROAD MOTOR CARS and STANDPIPES • FARM EQUIPMENT • MAGNETOS



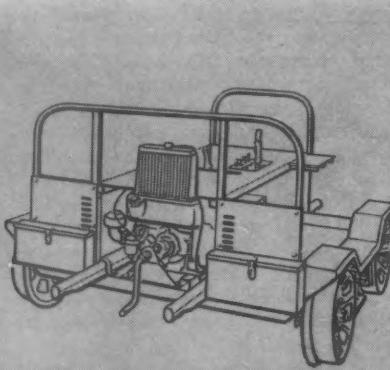
Model 53

6-to-8 man standard section car showing comfort-adding metal cab.



Model 58

Light section car; for 6 to 8 men.



Model 101

Newest inspection car with advanced safety features.

methods used in developing the figures. Except for the breakdown as between road and equipment, and use of figures as of a later date, the statement is like that introduced as Exhibit 1 in the Ex Parte 168 freight-rate case.

More Time on Changes In Motor Safety Rules

The Interstate Commerce Commission has extended to March 1, 1951, the period within which interested parties may submit their views with respect to the commission's proposed revision of its Motor Carrier Safety Regulations. The previous deadline was December 29 (see *Railway Age* of December 2, page 83).

A.T.A. Wants 620,000 New Heavy, Medium Trucks

A "detailed national survey" shows that some 620,000 new medium and heavy trucks, truck tractors and truck trailers will be required by the "trucking industry" in 1951, exclusive of military and other government vehicles, the American Trucking Associations told Defense Transport Administrator James K. Knudson on December 15.

The estimates, A.T.A. said, include 418,000 new medium trucks and truck tractors, 106,000 new heavy trucks and truck tractors, and 96,000 new truck trailers. This is fewer new heavy and medium trucks and truck tractors than were produced, on the average, in the 1946-1949 period, but trailer requirements are nearly double the 1947-1949 average production of 52,000 units a year.

Light truck and tire requirements will be presented to D.T.A. at a later date.

Senate Group Sees Need For Freight-Absorption Act

Enactment by the next Congress of legislation which will "clarify the right of sellers to competitive freight absorption" has been recommended by the Senate's "Watchdog Subcommittee on Freight Absorption and Pricing Practices." The subcommittee is a unit of the Senate committee on interstate and foreign commerce, and its report with the foregoing recommendation was submitted recently to the Senate by the parent committee's chairman—Senator Johnson, Democrat of Colorado.

The report had the "unanimous approval" of the parent committee. The subcommittee was appointed last June, after President Truman vetoed the bill (S.1008) which the present Congress enacted to eliminate uncertainties as to the legality of freight-charge absorptions by sellers undertaking to reach distant markets. (See *Railway Age* of June 24, page 126.)

The uncertainties arose as a result of the Supreme Court's April 26, 1948, decision upholding the Federal Trade Commission's "cease and desist" order against the cement industry's basing-point system of pricing. The Presi-

dent's veto message said that the proposed legislation would "obscure rather than clarify" the law, and that there is now "no bar to freight absorption or delivered prices as such."

The Senate's "watchdog" subcommittee was then created to follow the situation and determine whether or not F.T.C. was achieving the desired "clarification." In the six months that have elapsed since the veto of S.1008, the F.T.C. "does not appear to have taken any step toward a clarification of the law of competitive freight absorption," the subcommittee's report said in one place.

In recommending that the legislative approach be tried again by the next Congress, the report said that the subcommittee's staff had been directed to prepare such legislation. The hearings before the subcommittee, the report also said, had demonstrated that F.T.C. "considers itself unable and is in fact unwilling to clarify the law."

Canadian "Non-Ops" Win 40-Hr. Week, 7-Cent Rise

Some 124,000 non-operating employees of Canadian railroads will receive a wage increase of seven cents per hour, and can look forward to establishment next June 1 of a five-day, 40-hr. work week, under the report released on December 19 by Justice R. L. Kellock of the Supreme Court of Canada, and special arbitrator in the long pending wage-hour dispute between the railroads and 17 non-operating unions.

It has been estimated that these awards will cost the Canadian National and the Canadian Pacific approximately \$50 million per year, each, in increased wage payments. They are expected, as a result, to apply to the Canadian Board of Transport Commissioners within the near future for another increase in freight rates.

The wage increase, under Justice Kellock's findings, would be retroactive to last September 1. Only three cents per hour, however, remains to be paid, as the men have been receiving since that date an interim increase of four cents per hour under terms of an act passed by the Canadian Parliament

Canadian Railways Ask Higher Rates, Fair Return

Canadian railways, close on the arbitrator's findings in favor of a 40-hr. week and a wage increase for non-operating employees, reported elsewhere in this issue, applied to the Board of Transport Commissioners on December 21 for a general freight rate increase of 5 per cent, for "such further increase" as may be needed to meet the added costs of the 40-hr. week, and for a rate base to provide a fair return on net investment. The Canadian Pacific set 6½ per cent as the minimum rate of fair return on investment.

Car Surpluses and Shortages

Average daily freight car surpluses and shortages for the week ended December 16 were announced by the Association of American Railroads on December 21 as follows:

	Surplus	Shortage
Plain Box	1,200	9,042
Auto Box	60	95
Total Box	1,260	9,137
Gondola	697	3,008
Hopper	194	1,277
Covered Hopper	0	18
Stock	1,353	32
Flat	184	602
Refrigerator	2,099	0
Other	395	359
	6,182	14,433

to end the nine-day August strike of non-operating employees. (See *Railway Age* of September 2, page 77.)

The arbitrator's findings further provided that all agreements to which hotel and water transport employees of Canadian railroads are parties shall run for one year from September 1, 1950.

Hearing Off, Argument On In Express Pooling Case

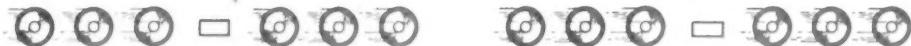
The Interstate Commerce Commission has cancelled a public hearing and announced its plan to decide on the basis of oral argument the case involving the Railway Express Agency's request for a commission ruling with respect to the agency's uniform operating agreements with the railroads. The ruling sought would be a specific determination to the effect that the commission's approval of pooling arrangements for handling express traffic has included approval of the agreements' so-called "exclusive provisions."

The latter are the provisions which constitute R.E.A. as the exclusive agent for each contracting railroad in the conduct of express business, and under which each road agrees not to transport competing traffic on passenger, mail or express trains. The R.E.A. petition to the I.C.C. is a maneuver calculated to remove the basis for the anti-trust complaint which the Department of Justice has filed against the agency in the United States District Court for the District of Delaware.

The Justice Department is an intervenor in the I.C.C. case, and it sought the cancellation of the public hearing which had been scheduled for April 9, 1951. (See *Railway Age* of December 2, page 80.) The commission order cancelling the hearing went on to set January 29 as the date for oral argument in the case.

The order was accompanied by a proposed report wherein Examiner Howard Hosmer recommended that the (Continued on page 43)

LET US BE THANKFUL
THAT WE ARE FREE TO CELEBRATE THE COMING HOLIDAYS
AND ENTER THE NEW YEAR WITH A DETERMINATION
TO KEEP THE WHEELS TURNING.



SEASON'S GREETINGS



Steam Generators for All Purposes
Welded Boilers for Steam Locomotives
Exhaust Steam Injectors
Superheater Pyrometers
American Throttles
Feedwater Heaters
Oil Separators
Superheaters
Steam Driers

Thanks...
and a Merry Christmas





...from Santa Claus — to his thousands of helpers who man America's Railroads



...from Johnny Jones for delivering that Christmas bike on time



...from Aunt Matilda for a safe trip home for the holidays



...from Sgt. Smith for getting that special
Christmas package cross-country to his best girl

...from the town of Perkinsville for prompt delivery
of the biggest Community Christmas tree in its history



...from manufacturers and merchants in
thousands of cities and towns for dependable,
every-day service the year 'round

...from all of us at A.C.F. to Railroadmen everywhere
a merry, Merry Christmas and a well-earned prosperous New Year!
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Conservation of rubber is a national problem. We're glad that our half century of experience in manufacturing Industrial Rubber Products gives us the know-how to use available rubber to produce longer-lasting products. You capitalize on this experience when you "Try Republic First!" Your local Republic Distributor can show you ways to conserve rubber in your plant and cut your costs with the RIGHT Republic Rubber product used in the RIGHT way. Contact him or write us direct.



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Is Our Face Red?

Maybe, unknown to us, one of *Railway Age's* proofreaders has a brother in the trucking business. At any rate, he and a linotype operator teamed up to make us quote Major General Philip B. Fleming, undersecretary of commerce for transportation, as telling the American Association of State Highway Officials at Miami, Fla., on December 4 that "excessive loading [of trucks] does not constitute a real threat to our highways." (*Railway Age*, December 9, page 43.)

What General Fleming actually said was, of course, the only thing he could have said, namely, that "excessive loading does constitute a real threat to our highways."

(Continued from page 38)

commission issue an order authorizing and approving the pooling and exclusive-agency arrangements. The proposed report, the commission's order said, was served on the parties "for the purpose of suggesting issues to be discussed in the . . . oral argument."

F.C.C. Members Observe Erie Radio System

Importance of radiotelephone communication in the safety and efficiency of railroad operation were demonstrated to members of the Federal Communications Commission by the Erie on December 15.

Operation of the Erie's four-way train-radio network, believed to be the most extensive main line railroad installation in the world, was observed by F.C.C. members and staff assistants during a daylight freight train ride between Susquehanna, Pa., and Jersey City, N. J., over almost 200 mi. of the most difficult territory from a radio reception standpoint along the Erie right-of-way. An extra radio-equipped caboose was attached to the rear of train No. NY-98 to serve as a laboratory for the inspection party, so the group could hear, see and participate in the use of train radiotelephone communication without interfering with the work of the train crew in the regular caboose.

Press Gets New Insight On Unicel in Chicago

Ability to produce 20 a day of its Unicel combination refrigerator-box cars at its plant in Hegewisch, Ill., "within a few months" was estimated by John I. Snyder, Jr., president and chairman of the Pressed Steel Car Company, at a luncheon and exhibit for the press held in Chicago on December 13. (For a description of the car see *Railway Age* of October 14, page 24.)

In answer to a question about the effect of its "cellular laminates" construction on material supply in the current defense emergency, Mr. Snyder

said his company now had commitments for enough plywood for 50 cars a day. While, admittedly, this material could become as short as steel, an increase in productive capacity by a plywood manufacturer costs much less in materials, manpower and money than a corresponding increase in steel-making capacity, it was said. Further, building of the Unicel car by Pressed Steel is reported to require "close to 50 per cent" fewer man-hours than for the conventional steel car and to involve "fewer and less exacting" skills. The company claims to have a good basis of comparison because it is currently turning out 25 steel cars a day at its Mt. Vernon (Ill.) shops. Finally, the Unicel car can be repaired, Mr. Snyder asserted, with "hammer, nails, saw and glue" and, if necessary, a new plug of plywood can be inserted in damaged areas of the car body.

Asked about prices set for Unicel, Mr. Snyder said he would rather answer by comparison with conventional freight cars; that the new combination car would cost 10 per cent less than the conventional steel box car, 20 to 25 per cent less than the conventional ice-type refrigerator and up to 40 per cent less than the present-day steel mechanically-refrigerated car. He added that insurance companies have "indicated" a willingness to finance Unicel cars "on a basis more favorable than conventional cars."

The new car has not yet been approved by the Association of American Railroads for interchange. Road tests are currently under way on the Chicago, Indianapolis & Louisville, where a Unicel car is being operated coupled to a conventional car, both units being instrumented. A squeeze test is planned for the near future. As noted elsewhere in this issue, 28 Unicel cars have been ordered by the government of Saudi Arabia.

I.C.C. Hears Argument On 28300 Rate Scale

The Interstate Commerce Commission this week heard oral argument on its proposed substitute for the basic scale of first-class rates which its report in the No. 28300 Class Rate Investigation prescribed for application in connection with the uniform classification being developed pursuant to the commission's findings in the No. 28310 investigation of that matter. The argument was held at the commission's headquarters in Washington, D. C., December 18 to 20, inclusive.

The proposed class-rate scale would apply on a uniform basis in all sections of the country except Mountain-Pacific territory. It has been designated the Appendix A Scale, and it supplants what had been known as the Appendix 10 scale, the latter having been set out in Appendix 10 of the commission's original report in No. 28300 (see *Railway Age* of May 26, 1945, page 937).

The Appendix A scale was promul-

gated by the commission in a notice dated November 28, 1949 (see *Railway Age* of December 3, 1949, page 57). It is designed to be an up-to-date version of the Appendix 10 Scale, reflecting the general rate increases which have become effective since 1945. Its rates are on a scale about 60 per cent higher than those of the Appendix 10 scale.

This week's argument consumed more than 12 hours, of which about half was taken up by railroad counsel. The argument pointed up positions with respect to the scale which had been taken by the railroads and other parties who submitted verified statements to the commission. The verified statements of the railroads were filed several months ago. As noted in *Railway Age* of July 15, page 55, they suggested various modifications in the Appendix A scale as promulgated by the commission.

Difference of Opinion

Speaking for the eastern railroads at this week's argument was Edwin A. Lucas, chairman of the eastern law committee. On the matter of uniformity, he said the eastern lines take the position that if the class rates are to be uniform, they should be uniform throughout the whole area embraced in the 28300 case.

Mr. Lucas then went on to call attention to the modifications in the scale which the eastern lines have proposed. In framing their proposals, he said, an effort was made to see how much of the commission's scale the eastern lines could live with.

H. C. Barron, counsel for the Executive Committee of the Western Traffic Association, said he was "shocked" by Mr. Lucas' statement with respect to uniformity. Mr. Barron went on to say he did not understand how one group of railroads could claim that a rate scale that would preserve their revenues should be "projected into another territory where it would reduce revenues by \$26,000,000."

The western counsel insisted that the question of uniformity had not been settled. As he read the commission's notice, it did not preclude the proposing of a scale different from the Appendix A scale. Mr. Barron also referred to the position taken by southern roads, which he described generally as one that recognized the existence of differing conditions and left to the western roads the job of suggesting rates for western territory.

The modifications of the Appendix A scale which the southern roads generally are proposing were outlined by their counsel, Frank W. Gwathmey, while the differing views of the Louisville & Nashville were discussed by that road's general counsel, W. L. Grubbs. The scales proposed by the southern roads would be applicable in the territory east of the Mississippi river.

Revenue effects of the various proposed scales as compared with the present basis of class rates were shown in a study issued recently by the

commission's Bureau of Transport Economics and Statistics (see *Railway Age* of December 16, page 55). The commission made this study a part of the record in the case.

ORGANIZATIONS

President J. M. Hood of the American Short Line Railroad Association has announced that the association's 38th annual meeting will be held at the Roosevelt Hotel, New Orleans, La., October 2, 3 and 4, 1951.

Presentation and discussion of eight broad phases of modern personnel administration will make up the program of the 1951 Conference on Industrial Personnel, to be held by the Department of Industrial Engineering of Columbia University, March 19 to 23, 1951. The conference comprises five days of morning and afternoon sessions, and three evening meetings; lectures and demonstrations; joint discussions between personnel executives and foremen; round-table panel meetings, and clinic sessions. The eight general topics to be presented are communications; design for communications; theory of joint participation; practice of joint participation; occupational guidance in industry; budgeting of employment; personnel and the community; and flexibility and tolerances in personnel systems.

EQUIPMENT AND SUPPLIES

FREIGHT CARS

The government of Saudi Arabia has ordered 28 "Unicel" refrigerator cars from the Pressed Steel Car Company.

SUPPLY TRADE

Fred M. Garland has been appointed assistant to president and general traffic manager of the Pressed Steel Car Company, with headquarters at Chicago.

Ralph J. Cordiner, executive vice-president of the General Electric Company since 1949, has been elected president to succeed **Charles E. Wilson**, recently named chairman of the Defense Mobilization Board.

W. E. Henges has been appointed vice-president of the Graybar Electric Company. He will continue as

assistant to the president, to which position he was appointed last September. Before that he was district manager at Cleveland, Ohio, for six years and at St. Louis, Mo., for two years.

Establishment of a new wholly owned company to conduct the foreign business of the **Electric Storage Battery Company** and its subsidiaries has been announced. The newly organized firm, **E S B International Corporation**, has new offices at 500 Fifth avenue, New York. **S. W. Rolph**,



E. C. Kline

president of the parent company, is also president of the new firm; **E. C. Kline** is executive vice-president; **J. B. Clark** and **J. E. Sheridan**, vice-presidents; **E. J. Dwyer**, secretary; **E. S. Maiden**, assistant secretary-treasurer-comptroller; **D. N. Smith**, comptroller; and **E. W. Williams**, treasurer.

Henry A. Sperry has been appointed sales representative in the St. Louis, Mo., office of the Safety Car Heating & Lighting Co.

C. G. Gehringer has been promoted to manager of the Fairbanks, Morse & Co. branch house at Louisville, Ky.

Charles H. Hobbs, formerly of the Hobbs Western Company, has been appointed a district manager of the Pyle-National Company, with headquarters in St. Louis, Mo. Mr. Hobbs will handle both railroad and industrial business for the company in Missouri, Kansas, Arkansas, southern Illinois and southern Indiana.

Lee L. Morgan, supervisor of agricultural advertising of the Caterpillar Tractor Company, Peoria, Ill., has been promoted to district representative for the states of New York, Vermont and New Hampshire, succeeding **G. R. Roelfs**, who has resigned to become sales manager of the Southworth Tractor & Machinery Co., at Albany, N. Y. **L. W. Smith** has been appointed district representative for the Central sales division,

succeeding **Dale S. Gronsdahl**, who has become district representative for eastern Pennsylvania and New Jersey.

Following his graduation from the University of Illinois with a degree in agricultural economics, Mr. Morgan joined Caterpillar in 1946, and in 1947 was appointed district representative for Alabama and central Tennessee. Two years later he returned to the Peoria plant as supervisor of agricultural advertising.

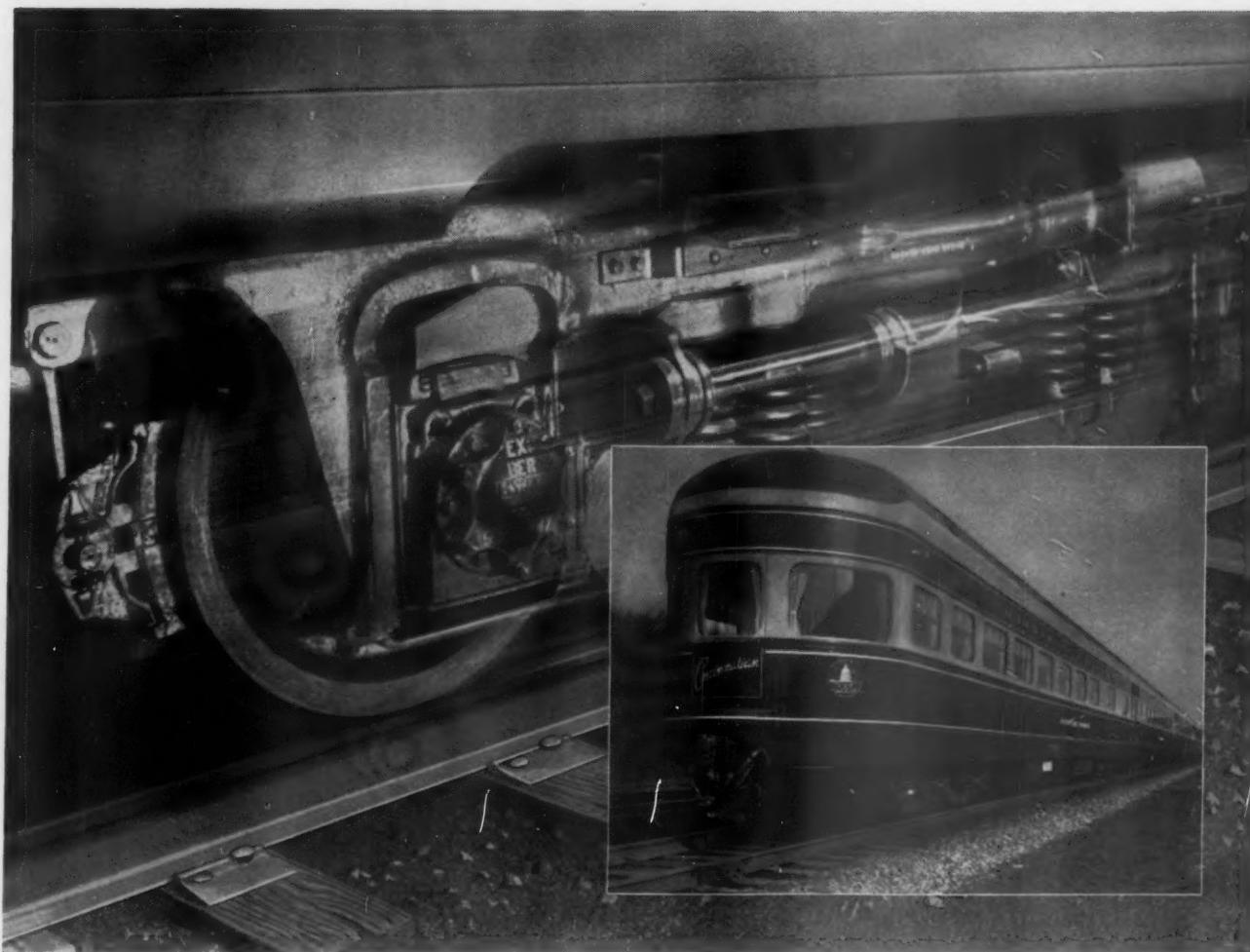
Mr. Gronsdahl was graduated from the University of Washington in 1944 with a degree in mechanical engineering and joined Caterpillar in 1947. In 1948 he was appointed district representative for Alabama and central Tennessee, which position he held until his recent transfer to the Eastern sales division.

Mr. Smith attended the University of Minnesota and the U.S. Naval Academy, being graduated from the latter with a degree in electrical engineering. He joined Caterpillar in February, 1948, and at the time of his recent appointment was serving as assistant district representative in Mississippi, Louisiana and Arkansas.

George H. Lynn has been appointed general sales manager of the Hamilton division of the Baldwin-Lima-Hamilton Corporation. In his new capacity Mr. Lynn will be in charge of sales of diesel engines, machine tools, can machinery and special equipment, with offices in Hamilton, Ohio. Mr. Lynn joined the Lima-Hamilton Corporation in 1947 as western district manager in Chicago for the Niles tool works division and the Hooven, Owens, Rentschler division. Prior to joining Lima-Hamilton he was with the sales department of the Westinghouse Electric Corporation from 1933 to 1939. He next became eastern representative for the Axelson Manufacturing Company of Los Angeles. (Continued on page 47)



Charles J. Wilhite, who has been promoted to acting northwest regional manager of the Cummins Engine Company, with headquarters at 809-810 Security building, Seattle, Wash. Ralph J. Shields succeeds Mr. Wilhite in the position of northwest regional service representative



Here's where Armco Wheel Research pays off!

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120 m.p.h. to stop in 15 seconds, with 20,000 pounds of pressure on each brake shoe.

Hundreds of tests like this have provided extremely valuable data. And this information has helped to produce the present Armco Wrought Steel Wheel — a wheel with high resistance to thermal cracking.

The use of such a wheel means not only greater safety but *more miles per wheel dollar*.

Why not get all the facts on Armco Wrought Steel Wheels? Just get in touch with our nearest district office or write us at the address below.

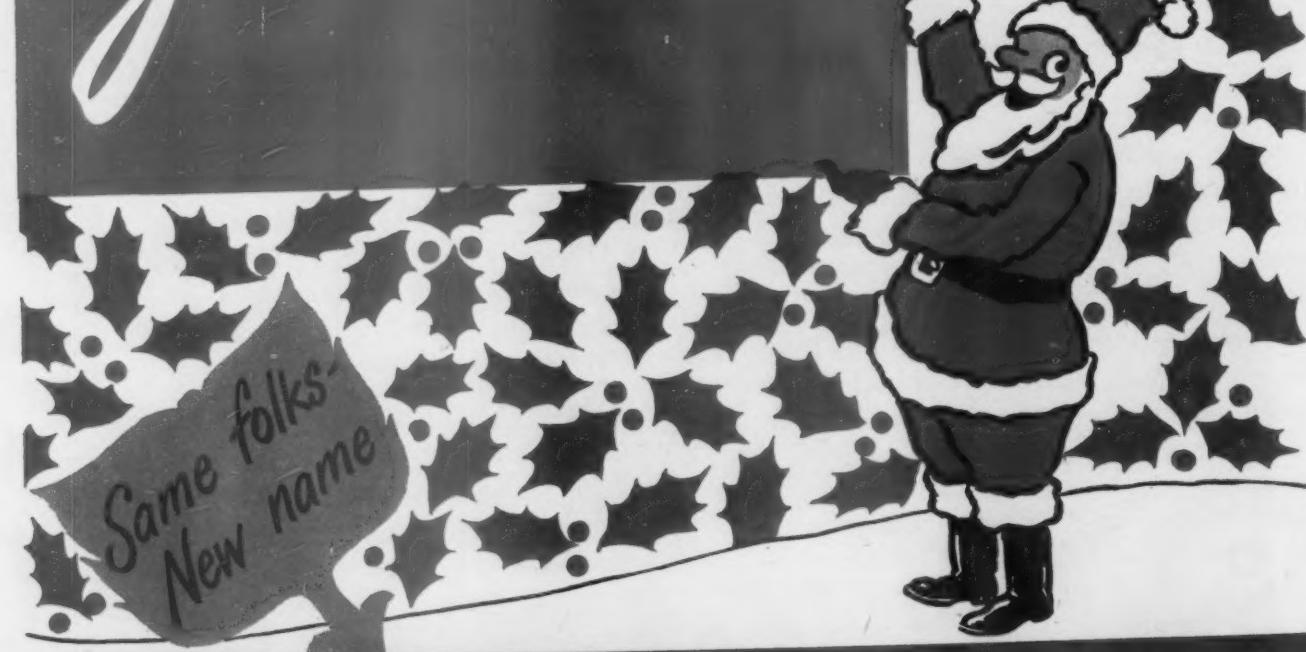


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*Christmas
Greetings*



FLANNERY MANUFACTURING COMPANY
BRIDGEVILLE, PENNSYLVANIA

RAILWAY AGE

(Continued from page 44)

geles, Cal., connected with the sales department of the lathe division. At the time Mr. Lynn left to join Lima-Hamilton he was special assistant to the president of the Los Angeles company.

H. V. Gigandet, vice-president of the Canadian Railroad Service Company, a unit of the Union Carbide & Carbon Corp., who has been associated with that company for 25 years, has requested a leave of absence because of ill health, and is contemplating an application for retirement some time next spring. **J. V. Condon**, whose appointment as assistant to vice-president was reported in the December 2 *Railway Age*, will assume Mr. Gigandet's duties during his absence.

Marvin W. Smith, president of the Baldwin-Lima-Hamilton Corporation, has announced that the directors have approved the substance of a plan to acquire from stockholders of the Austin-Western Company all 303,945 outstanding shares of common stock of that company for 486,321 shares of Baldwin common. The plan is subject to working out all necessary details.

Austin-Western, whose plant and general offices are at Aurora, Ill., manufactures construction equipment consisting of hydraulic cranes, road graders, street sweepers, rock crushing equipment, road rollers and railroad dump cars. Baldwin-Lima-Hamilton possesses plant capacity, the announcement said, which is readily adaptable to supplement the quantity of those products which Austin-Western can manufacture with its present facilities. The present management and personnel of Austin-Western will remain the same and will continue to direct the company's operations, including manufacturing, sales and en-

gineering. Certain of Austin-Western products will be sent to other Baldwin-Lima-Hamilton plants for manufacture, allowing Austin-Western to concentrate on road graders and its new hydraulic crane.

W. H. Williams has been appointed superintendent of installations of the Union Switch & Signal Co. and the Union Switch & Signal Construction Co. He succeeds **J. F. Talbert**, who reached retirement age last August 1 but has been retained for special assignments. Mr. Williams, whose headquarters are at Swissvale,

to his regular duties with Union Switch & Signal Construction in 1940. In May, 1943, he was appointed acting assistant superintendent of installations, and in May, 1946, assistant superintendent of construction, the position he held until his recent appointment.

CAR SERVICE

Administrator James K. Knudson of the Defense Transport Administration has delegated, to the director of the Interstate Commerce Commission's Bureau of Service, authority to allocate use of passenger-carrying equipment by railroads. The D.T.A. announcement pointed out that the same I.C.C. bureau director acts for the commission in administering "car service" provisions of the Interstate Commerce Act and orders issued thereunder, which have to do with use by railroads of freight cars and other equipment for transportation of property. "No passenger 'car service' orders are in contemplation at the present time," the announcement also said.

The I.C.C. has issued corrected versions of Service Orders 870 and 871, which limit free time allowed on cars held for loading or unloading at ports. The corrections make Order No. 870, which relates to cars held for loading, apply to all types of freight cars, while Order No. 871, which relates to cars held for unloading, was made applicable to box cars only. These situations as to applicability were transposed in the orders as originally issued (see *Railway Age* of December 16, page 64). The orders became effective December 15, and are scheduled to expire April 1, 1951.

I.C.C. Service Order No. 869, which restricts use of refrigerator cars for traffic other than perishable freight, has been modified by Amendment No. 1. The amendment rewrites the first of the order's six exemption provisions to make it apply to "commodities loaded in refrigerator cars under provisions of any existing tariffs authorizing the substitution of refrigerator cars for box cars on the basis of two or three refrigerators for each box car ordered." As originally written, this provision failed to cover all of the two-or-three-for-one tariffs (see *Railway Age* of December 16, page 64).



W. H. Williams

Pa., started his signaling career as a helper on the Norfolk & Western in 1916. Later he served as signalman and assistant storekeeper until March, 1919, when he was appointed signal maintainer on the Norfolk division. Mr. Williams held this position until he



J. F. Talbert

joined the Union Switch & Signal Construction Co. in September, 1925, as a signalman. Since then, he has worked as assistant foreman, foreman, and general foreman on outside construction. In 1939 he was appointed chief dispatcher in charge of operation and maintenance for the Eastern Presidents' Conference's model railroad at the New York world's fair. After serving in this capacity during the two seasons of the fair, Mr. Williams returned

L. W. Jander, who has been appointed sales manager of the industrial division of Henry Disston & Sons. Mr. Jander succeeds **J. F. Wilkinson**, who has resigned to enter his own industrial distributing business in Miami, Fla. Mr. Jander, a veteran of 16 years with Disston, has been in charge of eastern sales division operations since 1947.

CONSTRUCTION

Chesapeake & Ohio.—This company's high level pier 9 at Newport News, Va., has been sold for scrap; dismantling of the 36-year-old structure will start early next month. The buyer, Luria Bros. & Co. of Philadelphia, Pa., states that dismantling

operations will take about five months. Pier 9 was made obsolete by the building of new pier 14, in operation since November, 1949. (See *Railway Age* of February 25, 1950, page 28.)

Missouri Pacific.—Grading for a new open-cut alignment at Vineland, Mo., (which eliminates a tunnel, thereby permitting operation of planetarium dome cars — see *Railway Age* of December 2, page 54) is 28 per cent complete. This work is being undertaken by the Porter-DeWitt Construction Company of Poplar Bluff, Mo., while the balance of the project will be done by company forces. The estimated cost of this phase of the project is \$216,000. Bridges at Patterson, Ark., and Earle are being reconstructed, the latter at a new location, at a total cost of about \$50,600.

Southern Pacific.—To clear certain property for highway purposes at Coos Bay, Ore., this company will construct 5,160 ft. of track, including seven switches, remove 5,050 ft. of track and six switches, and relocate 770 ft. of track, at a total cost of \$66,000. At Drawbridge, Cal., 310 ft. of a 690-ft. open-deck trestle are being renewed and 32 ft. of the structure are being filled, at a cost of about \$39,310. Two industrial tracks and 2,125 ft. of drill tracks are being constructed at Rawson, Cal., at a cost of \$20,115. To permit construction of a street ramp at Beale, Bryant and First streets in San Francisco, Cal., the company has proposed construction of 1,328 ft. of track, removal of a similar amount of present trackage and installation of a flashing light signal, at a total cost of about \$30,600. To release for industrial purposes 37,000 sq. ft. of space in the old Los Angeles, Cal., Central station area (currently used as a general repair shop by the Pacific Motor Trucking Company, an S.P. subsidiary), the S.P. plans to purchase property at North Spring and Ann streets, to repair existing buildings thereon and to construct an additional 75 ft. by 100 ft. building at a total cost of \$53,317. The company also proposes to install 300 ft. of concrete ribs between present timber sets in Tunnel #28 at East Applegate, Cal., and construction of 1,660 ft. of drill track and 959 ft. of spur track to serve the Pacific Electric Manufacturing Company at Santa Clara, Cal. These projects will cost about \$59,590 and \$22,010, respectively.

ABANDONMENTS

Division 4 of the I.C.C. has authorized:

TEXAS & PACIFIC.—To abandon 10.9 mi. of branch line between Melville, La., and Gordon Spur. The line serves an area principally devoted to growing sugar cane, and the commission's authorization was made effective December 31, 1951, to give shippers time to make other arrangements for movement of their traffic.

FINANCIAL

Central of New Jersey.—Property Sale.—This road has tentatively agreed to sell to the Port of New York Authority approximately 850 acres of meadowland property in the Newark, N. J.-Elizabeth area for \$3,000,000. The Port Authority, which is acquiring the property to extend Newark airport, has had possession of the land since last March under an agreement which provided for setting a sale price later.

Central Pacific-Southern Pacific.—Acquisition.—These roads have filed a joint application with the I.C.C. for authority for the former to acquire, and the latter to operate, a new 23.2-mi. segment of main line between Lookout, Ore., and Jasper. The new line is being constructed by the government to replace present trackage which will be submerged by the reservoir from Lookout Point Dam. The two roads also asked the commission for authority to abandon the present tracks, which total about 22.2 mi.

Illinois Central.—New Director.—Donald B. Lourie, president of the Quaker Oats Company, has been elected to this road's board of directors.

New York, New Haven & Hartford.—Purchase of B.&P. Debentures.—The I.C.C. has denied a Metropolitan Life Insurance Company petition asking for an order to take a deposition on oral examination of Frederic C. Dumaine in connection with the latter's ownership of New Haven and Boston & Providence securities. (See *Railway Age* of November 4, page 94.) The commission said the insurance company had advanced no "compelling reasons" for the taking of the deposition. Metropolitan is an intervenor in this case, which involves an application by the New Haven to purchase a claim against the estate of the B. & P. based upon \$2,170,000 of matured 5 per cent debentures.

Pennsylvania-Wabash.—Control of D.T.&I.—Acting in response to a request of the United States District Court for the Northern District of Ohio, to which the case has been appealed, the I.C.C. has further postponed, from December 23 until February 23, 1951, the effective date of its order authorizing these roads to acquire control of the Detroit, Toledo & Ironton. The New York Central, the Baltimore & Ohio, and the New York, Chicago & St. Louis oppose the acquisition as approved by the commission. (See *Railway Age* of August 19, page 56.)

New Securities

Application has been filed with the I.C.C. by:

NEW YORK CENTRAL.—To assume liability for \$7,500,000 of equipment trust certificates to finance in part 66 diesel-electric locomotive units costing approximately \$9,631,380:

Description and Builder	Estimated Unit Cost
18 1,200-hp. switching locomotives (Electro-Motive Division, General Motors Corporation)	\$101,610
2 1,200-hp. switching locomotives (Electro-Motive)	98,405
2 1,600-hp. road freight locomotives, "A" units (American Locomotive Company)	170,000
10 1,600-hp. road freight locomotives, "B" units (American)	151,500
34 1,500-hp. road freight locomotives, "A" units (Electro-Motive)	169,135

The certificates, to be dated January 1, 1951, would mature in 15 annual installments of \$500,000 each, beginning January 1, 1952. They would be sold on the basis of competitive bids, with the interest rate to be set by such bids.

Division 4 of the I.C.C. has authorized:

MISSOURI-KANSAS-TEXAS.—To assume liability for \$5,700,000 of equipment trust certificates to finance in part 31 diesel-electric locomotives costing approximately \$5,725,725. (See *Railway Age* of November 23, page 64.) The certificates, to be dated January 1, 1951, will mature in 30 semiannual installments of \$190,000 each, beginning July 1, 1951. Division 4's report approved a selling price of 98.587 with interest at 2% per cent—the bid of Salomon Bros. & Hutzler and associates—which will make the average annual cost of the proceeds approximately 3.1 per cent. The certificates were reoffered to the public at prices yielding from 1.8 to 3 per cent, according to maturity.

Dividends Declared

Canada Southern.—\$1.50, semiannual, payable February 1, 1951, to holders of record December 27.

Canadian Pacific.—4% non-cumulative preference (final), 2%, payable February 1, 1951, to holders of record December 29.

East Pennsylvania.—\$1.50, semiannual, payable January 16, 1951, to holders of record December 30.

New London Northern.—\$1.75, quarterly; extra, 40 cents, both payable December 27 to holders of record December 15.

Savannah & Atlanta.—common, \$2; preferred, \$1.25, quarterly, both payable January 1, 1951, to holders of record December 13.

Wabash.—common, \$2, payable December 22 to holders of record December 8.

Security Price Averages

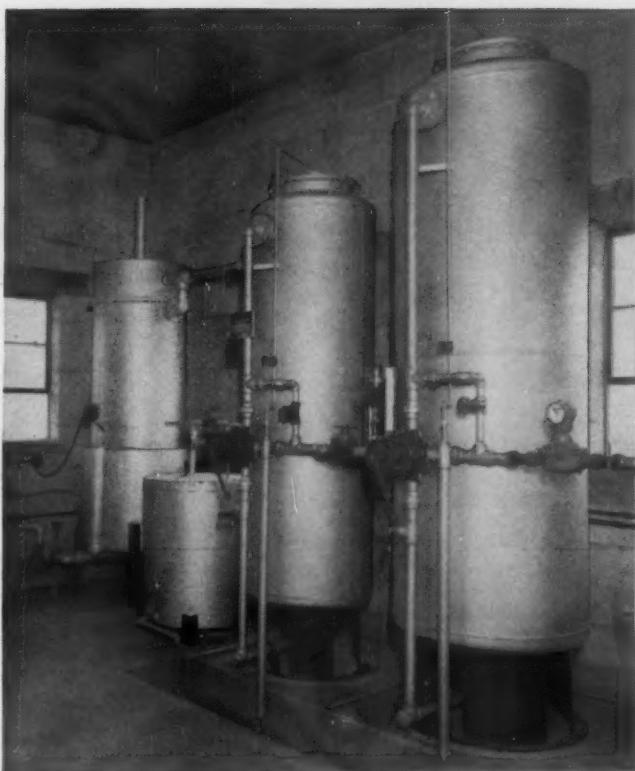
	Dec. 19	Last week	Last year
Average price of 20 representative railway stocks	54.33	52.12	39.69
Average price of 20 representative railway bonds	97.23	96.92	89.00

RAILWAY OFFICERS

EXECUTIVE

N. D. Hyde, assistant to vice-president of the NEW YORK CENTRAL, Lines West of Buffalo, at Chicago, has been appointed assistant to vice-president in charge of operations and maintenance at New York, effective January 1, 1951.

Charles E. Woodson, of Roanoke, Va., has been named executive vice-chairman of the PURCHASES AND STORES DIVISION of the ASSOCIATION OF AMERICAN RAILROADS. He succeeds **William J. Farrell**, of Washington, D. C., who died recently. Mr. Woodson, who has been on loan to the A.A.R. from the Norfolk & Western, had previously been appointed special assistant to the chairman of the P.S. Division. During his association with the A.A.R., Mr. Woodson has been en-(Continued on page 51)



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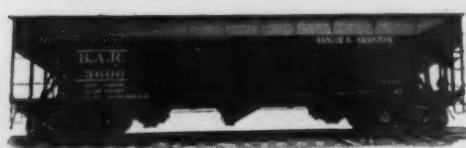
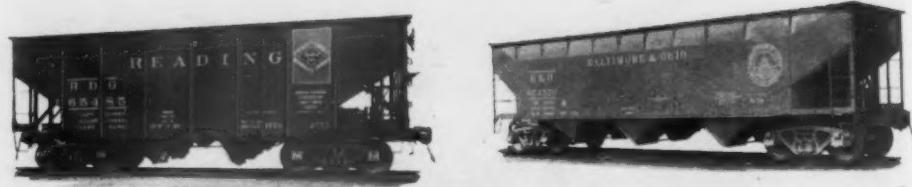
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(Continued from page 48)

gaged in a survey of railroad steel requirements for 1951 for presentation to governmental agencies dealing with steel allocations. Born in Roanoke in 1906, Mr. Woodson entered service



Charles E. Woodson

with the N.&W. in 1925, and has served continuously with that road in such capacities as laborer, labor foreman, stockkeeper, sectional storekeeper and storehouse foreman. During World War II, he was in charge of priorities for the N.&W.

J. P. Patterson, general freight traffic manager of the NEW YORK CENTRAL SYSTEM, has been appointed to the newly-created position of assistant vice-president, freight traffic, with headquarters as before at New York. Mr. Patterson was born at St. Catharines, Ont., and entered N.Y.C. service as a general clerk at Buffalo, N. Y., in 1907, subsequently serving in various freight traffic department posi-



J. P. Patterson

tions there and at Erie, Pa., and Chicago. In 1923 he was appointed division freight agent at Toledo, Ohio, where he served until 1925. Between 1926 and 1935 Mr. Patterson held various freight traffic positions at Chicago, including freight traffic manager and traffic manager, and since June, 1935, has been at the road's New York

headquarters. He served as senior assistant to vice-president, freight traffic, from January, 1941, to January, 1946, when he became general freight traffic manager.

FINANCIAL, LEGAL & ACCOUNTING

Ian D. Sinclair has been appointed assistant to the general counsel of the CANADIAN PACIFIC at Montreal, Que., effective January 1, 1951. For the past four years Mr. Sinclair has been junior counsel for the railway in its tax and labor cases, as well as at hearings before the Royal Commission on Transportation.

Kenneth F. Stone, assistant general counsel of the NEW YORK CENTRAL, has been appointed general attorney, with headquarters as before at New York, succeeding **Frederick L. Wheeler**, who will retire on December 31, after 45 years of service. **Paul Folger**, chief assistant general attorney at New York, will also retire on December 31. **Clyde Brown, Jr.**, assistant to general attorney at New York, has been appointed assistant general attorney.

M. L. Bluhm, general solicitor of the CHICAGO, MILWAUKEE, ST. PAUL & PACIFIC, at Chicago, has been elected general counsel. **Carson L. Taylor**, general attorney and commerce counsel at that point, succeeds Mr. Bluhm.

George W. Bramfeld, who has been appointed assistant general auditor of the ILLINOIS CENTRAL, as reported in the November 25 *Railway Age*, is a native of Chicago. Mr. Bramfeld attended Englewood high school, Metropolitan Business College and Northwestern University School of Commerce. He began his career with the I. C. in 1916 as a statistical clerk, later being advanced to head clerk in that bureau. Subsequently he served as special accountant, traveling tax accountant, mechanical accountant and payroll accountant. He was transferred to the office of the comptroller in 1940 as special accountant, and two years later became assistant general accountant. In 1946 Mr. Bramfeld was made general accountant, the position he held at the time of his recent appointment.

OPERATING

J. F. Reents has been appointed trainmaster on the ILLINOIS CENTRAL, with headquarters at Vicksburg, Miss., succeeding **F. K. Stanford**, who has been transferred to Freeport, Ill., where he replaces **H. R. Koonce**. Mr. Koonce has been named trainmaster at Bluford, Ill., to succeed **D. F. Quiet**, who has been appointed trainmaster of the Chicago Terminal, at Chicago.

Thomas J. Seale, superintendent of the New Orleans, La., division of the RAILWAY EXPRESS AGENCY, has

been transferred to the Pamlico division, Gulf department, at Richmond, Va., succeeding **M. B. Daniel**, deceased. Mr. Seale was born at Hamburg, Miss., and began his express career in 1914, serving successively as division supervisor at Hammond, La., general agent at New Orleans, division superintendent there, superintendent of organization of the Southern departments at Atlanta, Ga., and superintendent of the New Orleans division.

J. J. Tate, general yardmaster of the TOLEDO TERMINAL, at Toledo, Ohio, has been appointed trainmaster.

TRAFFIC

Arthur E. Baylis, assistant general freight traffic manager of the NEW YORK CENTRAL SYSTEM, has been appointed general freight traffic manager, with headquarters as before at New York, succeeding **J. P. Patterson**, who has been appointed to the newly-created position of assistant vice-president, freight traffic. Under the general supervision of Mr. Patterson, Mr. Baylis will be in direct charge of the Central's freight traffic department.

Mr. Baylis was born at Colorado Springs, Colo., on April 9, 1910, and received his bachelor of arts degree from Colorado College there in 1932 and his master's degree from Tufts College in 1934. He was instructor in transportation and economics at Tufts College from 1932 to 1934. After serv-



Arthur E. Baylis

ing on the staff of the Federal Coordinator of Transportation in 1934-1935, Mr. Baylis joined the N.Y.C. in February, 1935, as staff assistant in the office of the vice-president, traffic. Following several promotions, including the position of assistant to vice-president, traffic, he was furloughed in 1942-1944 for government service with the Office of Defense Transportation. He served the O.D.T. as executive assistant to the director of traffic movement, and later as assistant director of traffic movement. Mr. Baylis returned to the N.Y.C. on October 1, 1944, as

foreign freight traffic manager, and in July, 1946, was appointed assistant general freight traffic manager.

Roy W. Pederson, Jr., has been appointed industrial and tax agent of the CHICAGO GREAT WESTERN, with headquarters at Chicago.

E. T. Mollahan, office manager of the WESTERN TRUNK LINE COMMITTEE, has been appointed a member of the STANDING RATE COMMITTEE, succeeding **Fred Cole**, who has retired, at his own request, after more than 52 years of service with western railroads and the western committee. Prior to his appointment as office manager, Mr. Mollahan served as assistant tariff publishing agent.

Julian H. Lines, industrial agent of the ATLANTIC COAST LINE, has been appointed general industrial agent, with headquarters as before at New York.

L. J. Roach, freight traffic agent of the UNION PACIFIC at Denver, Colo., has been appointed general agent, freight department, with headquarters at Sioux City, Iowa, effective January 1, 1951. He succeeds **J. F. Turrentine**, who has been transferred to Kansas City, Mo., as reported in the December 16 *Railway Age*.

Thomas E. Morris, special traffic representative of the CANADIAN NATIONAL at Boston, Mass., has been appointed general agent of the CENTRAL VERMONT at Detroit, Mich., succeeding **Morton W. Simpson**, who has been appointed general agent of the C.N. at Boston, to replace **Miles P. Cunningham**, who has retired on pension. **John C. Burns**, general agent of the C. N. at New Haven, Conn., has been appointed division freight agent at Portland, Me., succeeding **Edward P. Cronk**, who has retired. **Warren A. Kennedy**, traveling freight agent at Boston, succeeds Mr. Burns at New Haven.

Charles B. Kerr, assistant freight traffic manager (rates and divisions) of the MINNEAPOLIS & ST. LOUIS, has been promoted to freight traffic manager. **Guy D. Larrabee**, **C. Leroy Fuller** and **Otto C. Birnbrauer**, traffic managers at St. Louis, Mo., Minneapolis, Minn., and New York, respectively, have been advanced to freight traffic managers. **Clyde E. Hill**, assistant general freight agent (sales and service), at Des Moines, Iowa, has been promoted to general freight agent. **James A. Swanson** and **Robert G. Malmquist**, assistant general freight agents at Minneapolis, have been promoted to general freight agents. **Thomas E. Keating**, **D. E. Dahlgren**, and **John A. Cochrane**, general agents at Houston, Tex., San Francisco, Cal., and Pittsburgh, Pa., respectively, have been advanced to assistant freight traffic managers. **Vern G. Russell**, general agent at St. Paul, Minn., has been promoted to assistant

general freight agent, with jurisdiction over both the St. Paul and Minnesota Transfer offices of the M&St.L. **J. J. Mullen**, commercial agent, has been advanced to general agent, with headquarters as before at Chicago.

John G. Duggan has been appointed foreign freight agent of the UNION PACIFIC at New York, effective January 1, 1951.

Roy R. Spangenberg, general passenger agent of the NEW YORK CENTRAL SYSTEM at St. Louis, Mo., has been transferred to Cincinnati, Ohio, succeeding **Arthur C. Thompson**, who will retire on January 1, 1951, after 50 years of service with that road. **Theodore R. Ruth**, assistant general passenger agent at New York, succeeds Mr. Spangenberg as general passenger agent at St. Louis. **Terence A. Smith**, passenger representative at New York, has been appointed general agent at Washington, D. C., succeeding **Warren H. White**, who replaces Mr. Ruth as assistant general passenger agent at New York. **William E. Frackelton**, general passenger agent, has been appointed to the new position of assistant to passenger traffic manager, with headquarters as before at Detroit, Mich. **Charles Fendrych**, general passenger agent at Cleveland, Ohio, has been transferred to Detroit, to succeed Mr. Frackelton. **Theodore E. Smith**, division passenger agent at Syracuse, N. Y., has been appointed general passenger agent of the Pittsburgh & Lake Erie, a Central affiliate, at Pittsburgh, Pa., to succeed **Herbert H. Harwood**, who replaces Mr. Fendrych at Cleveland. **Edward R. Ahlborn**, passenger representative, has been appointed general eastern passenger agent, with headquarters as before at New York, succeeding **Carroll O. B. Brown**, who replaces Mr. Smith at Syracuse.

Orrie M. Meyne, assistant freight traffic manager of the ERIE, has been appointed freight traffic manager, with headquarters as before at New York. **Peter J. Napoli**, manager of perishable and dairy traffic, has been appointed perishable traffic manager, also with headquarters as before at New York. The positions formerly held by Messrs. Meyne and Napoli have been abolished.

Denis Headley, chief of the tariff bureau of the Central and Atlantic regions of the CANADIAN NATIONAL, has been appointed general freight agent, having system jurisdiction, with headquarters as before at Montreal, Que. **W. A. Bell**, chief clerk to the freight traffic manager, succeeds Mr. Headley as chief of the traffic bureau.

MECHANICAL

C. A. Pease has been appointed assistant master mechanic on the NEW YORK CENTRAL, with headquarters at Toledo, Ohio.

P. F. Spangler, assistant superintendent motive power of the ST. LOUIS-SAN FRANCISCO, has been appointed superintendent car department, with headquarters remaining at Springfield, Mo.

H. G. Dugan, master mechanic of the TOLEDO TERMINAL at Toledo, Ohio, has been appointed superintendent of operations and motive power. His former position has been abolished.

F. J. Kossuth, assistant superintendent equipment of the NEW YORK CENTRAL, Lines Buffalo and East, has been appointed assistant to general superintendent equipment—car, with headquarters as before at New York, succeeding **J. A. Brossart**, who will retire on January 1, 1951, after 47 years of service. **H. H. Duhne** has been appointed general supervisor electric equipment of the system at New York, succeeding **G. S. Glaiber**, transferred.

PURCHASES & STORES

Charles E. Reasoner, assistant general storekeeper of the MISSOURI-KANSAS-TEXAS at Denison, Tex., has been promoted to general storekeeper, with headquarters at Parsons, Kan., succeeding **C. E. Bulkley**, who has been appointed director of dining car service and commissary departments at San Antonio, Tex. **T. W. Greenawalt**, traveling storekeeper at Parsons, succeeds Mr. Reasoner as assistant general storekeeper.

Mr. Reasoner was born in Parsons on July 22, 1907, and entered the service of the Katy in 1925 as a locomotive



Charles E. Reasoner

crane fireman. He later served as scrap dock foreman and in 1937 was advanced to assistant district storekeeper. Mr. Reasoner was appointed assistant general storekeeper at Denison in September, 1946.

Also a native of Parsons, Mr. Greenawalt began his railroad career in the stores department of the Katy in 1925 as a trucker, advancing (Continued on page 55)

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(Continued from page 52)
through various positions in that department until his appointment as traveling storekeeper in 1948.

ENGINEERING & SIGNALING

John F. Swenson, division engineer on special duty in the office of chief engineer maintenance of way of the PENNSYLVANIA at Chicago, has retired after more than 39 years of active service.

Lee A. Loggins, assistant chief engineer of the SOUTHERN PACIFIC LINES IN TEXAS AND LOUISIANA, has been appointed chief engineer, with headquarters as before at Houston, Tex., succeeding **H. J. McKenzie**, who has been appointed executive vice-president of the ST. LOUIS SOUTHWESTERN at St. Louis, Mo., as reported in the *Railway Age* of December 16.

Nicholas V. Back has been appointed engineer maintenance of way of the TORONTO, HAMILTON & BUFFALO at Hamilton, Ont. The position of supervisor maintenance of way has been abolished.

SPECIAL

A. C. Hart, brakeman-conductor for the ST. LOUIS-SAN FRANCISCO, has been named safety supervisor, with headquarters at Memphis, Tenn.

J. H. Williams, trainmaster of the TEXAS & PACIFIC at Alexandria, La., has been appointed superintendent of safety at Dallas, Tex. He succeeds **C. D. Norman**, who has been assigned other duties.

L. F. Annable, superintendent relief department of the CHICAGO, BURLINGTON & QUINCY at Chicago, has been appointed to the additional positions of manager—relief, employment, hospital insurance, medical, and pension departments and chairman of the board of pensions.

OBITUARY

James Hampton, claim agent of the GULF, MOBILE & OHIO, at Chicago, died in St. Luke's hospital in that city on December 10.

Roy B. Kinkaid, assistant freight traffic manager of the BALTIMORE & OHIO, at Chicago, died on November 30.

Charles H. Keller, superintendent of the WABASH, with headquarters at Chicago, died on December 18 at Decatur, Ill. Mr. Keller was born on September 29, 1901, at Decatur, and attended Indiana University. He entered railroad service in 1920 with the New York Central, serving successively with that road at Ft. Wayne, Ind., as clerk, switchman and yardmaster. He joined the Wabash in 1924 as a clerk at Ft.

Wayne, being advanced to yardmaster in 1928 and to general yardmaster the following year. He was promoted to assistant trainmaster at Montpelier, Ohio, in 1936, and to trainmaster there in 1937. In 1940 Mr. Keller became trainmaster at Peru, Ind., and in 1942 was transferred to Decatur. He was advanced to superintendent at Chicago in February, 1947.

Hermon J. Wells, vice-president and general counsel of the NEW YORK, NEW HAVEN & HARTFORD and its subsidiaries, at New Haven, Conn., died on December 17 in New Haven hospital after a heart attack. Mr. Wells was born at Salt Lake City, Utah, on September 22, 1891, and received his B.A. degree from the University of Utah in 1916; his LL.B. degree from George Washington University in 1929; and his LL.M. from Harvard University in 1930. He began his career as a teller with the Utah Light & Railway Co. in 1910 and from 1911 to 1913 represented the Mormon Church in Eng-

to his regular duties with Union Switcher agent and in 1930 was promoted to assistant general passenger agent. Mr. Palmer became passenger traffic manager of the B. & M. and M.C. in 1947.



Charles F. Palmer

He was a past president of the Boston Association of Railroad and Steamboat Agents and of the American Association of Passenger Traffic Officers.

James Alexander MacLeod, chief engineer of the SAVANNAH & ATLANTA at Savannah, Ga., died on December 9. Mr. MacLeod was born on May 24, 1891, at Atlanta, Ga., and attended grammar and preparatory schools and Georgia School of Technology (three years). After several years of railroad and general civil engineering, Mr. MacLeod joined the S&A. in November, 1915, as assistant construction engi-



Hermon J. Wells

land. He subsequently served as principal of the Milford (Utah) high school and as secretary-treasurer of the Insulation Manufacturing Company. From 1922 to 1927 he headed the engineering department in college and in the latter year became audit clerk for the United States Department of Justice. He then served successively as U.S. Civil Service examiner and law examiner and as acting secretary for the Civil Service Commission. Mr. Wells joined the New Haven as tax counsel in 1931, and was appointed solicitor in 1935, assistant general counsel in 1938, and vice-president and general counsel in August, 1943.

As reported in the *Railway Age* of December 16, **Charles F. Palmer**, passenger traffic manager of the BOSTON & MAINE and the MAINE CENTRAL, at Boston, Mass., died on December 11. Mr. Palmer entered the service of the B&M. in 1906 as a clerk and later resigned to join the Boston & Albany as assistant ticket agent, subsequently becoming traveling passenger agent. He served in the United States Navy during World War I. In 1926 he returned



James Alexander MacLeod

neer at Atlanta. He was appointed assistant chief engineer at Savannah in June, 1917, and chief engineer in January, 1919. Mr. MacLeod was also civil engineer of the Port Wentworth Terminal Corporation from September, 1917, to March, 1921, and of the Port Wentworth Corporation, Savannah, from January, 1937, until his death. From 1933 until his death he was editor-in-chief of the S&A. Line, published by the engineering department of the S&A.

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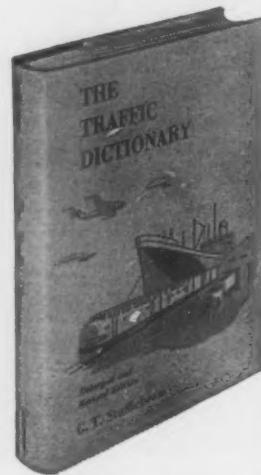
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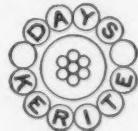
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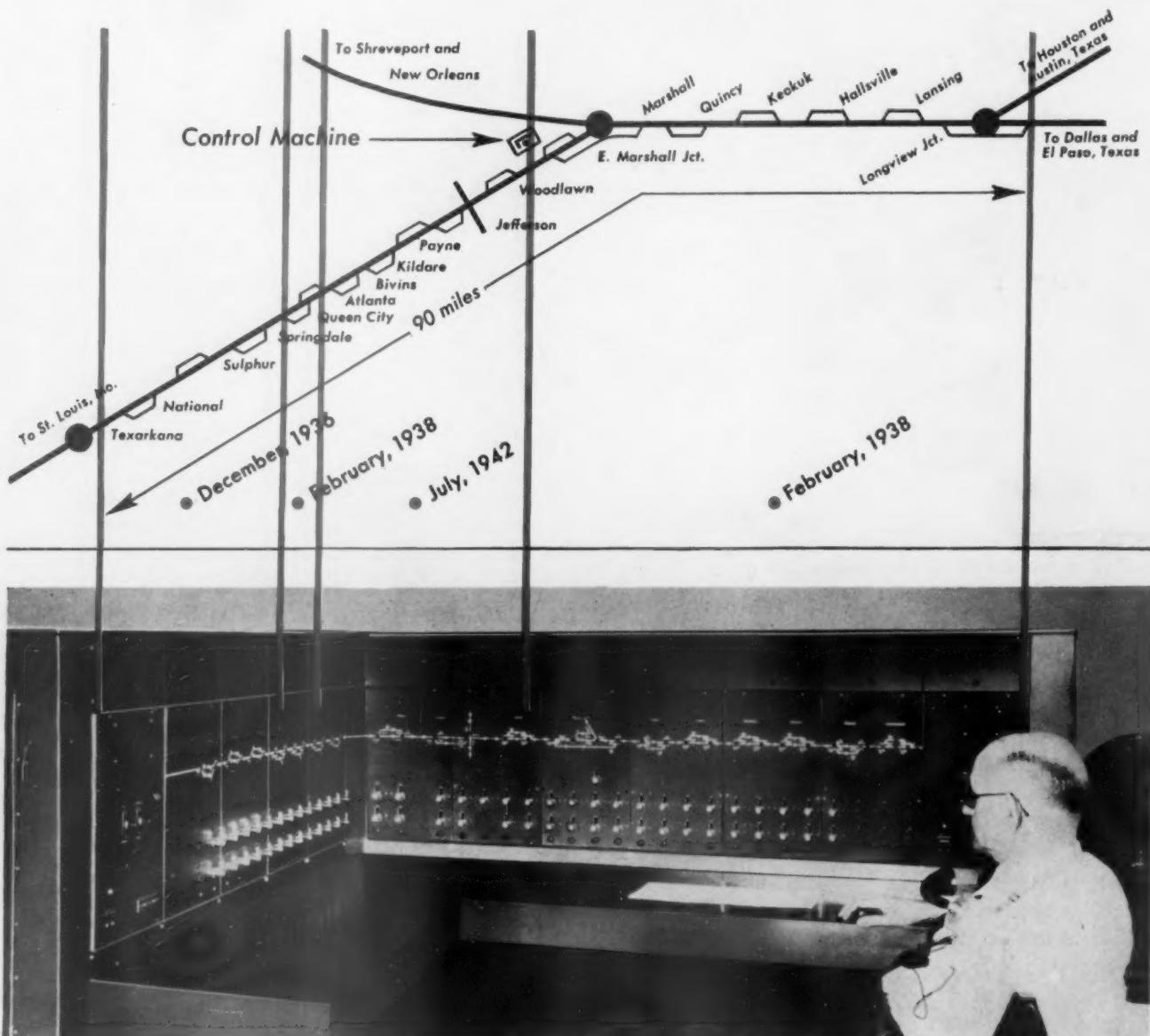
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RAILWAY AGE

THE STANDARD RAILROAD WEEKLY FOR ALMOST A CENTURY

DECEMBER 30, 1950



Starting in 1938 with a single switcher, the Northern Pacific fleet of General Motors Diesels has grown steadily to its present total of 115 units, which are handling 41% of the freight traffic, 82% of the passenger traffic, and a substantial part of all switching operations. Such wholehearted acceptance confirms what most progressive railroads already know, that the surest way to faster schedules, greater patronage and lowered operating costs is through the use of General Motors locomotives.

ELECTRO-MOTIVE DIVISION

GENERAL MOTORS · LA GRANGE, ILLINOIS
HOME OF THE DIESEL LOCOMOTIVE

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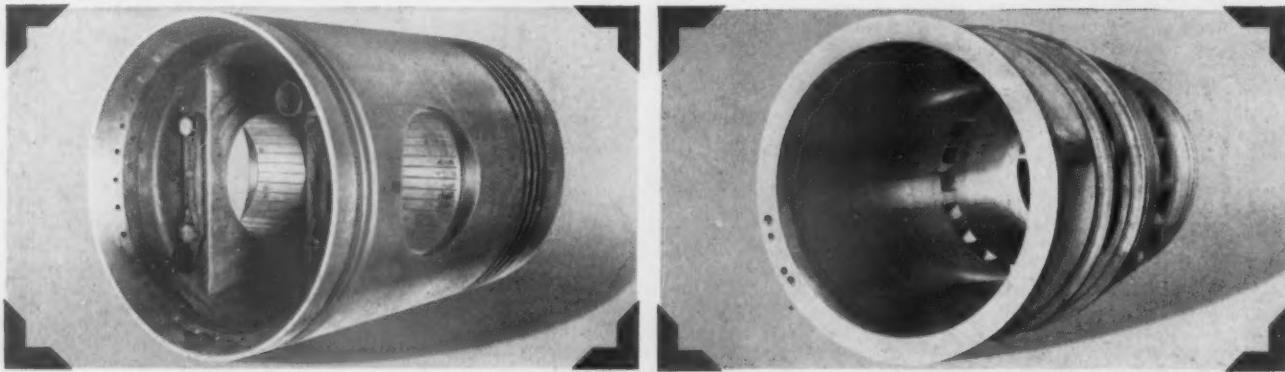


STANDARD ENGINEER'S REPORT

DATA

LUBRICANT	RPM Delo Oil R.R.
UNIT	Diesel Locomotive cylinder assembly
SERVICE	Mountain Freight
LOCATION	Transcontinental freight service on Moffat tunnel + Royal Gorge Routes
PERIOD	In excess of 8 years
FIRM	Denver & Rio Grande Western R.R.C.

One million miles of service on cylinder liners and pistons



IN SERVICE APPROXIMATELY 1,000,000 MILES in Denver & Rio Grande Western Railroad diesel locomotive engines, this piston and cylinder liner were always lubricated with RPM DELO Oil R.R. At the end of that time wear

measurements (inches) were only: Piston Skirt—0.001; Ring Grooves—No. 1—0.003 to 0.006, No. 2—0.002, No. 3 & 4—none; Cylinder liner (maximum diameter)—0.0095, (out of round)—0.002 to 0.004.

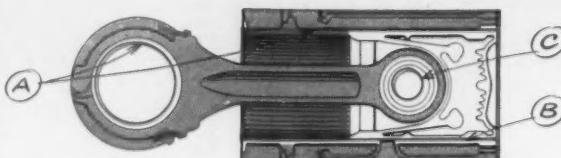


RPM DELO Oil R.R. has been the standard on the Denver & Rio Grande Western Railroad for over-the-road freight and passenger locomotives since their first power of this type was placed in service in January 1942. At the time this inspection was made approximately 49,563,104 miles had been traversed by the Rio Grande freight diesel fleet of 100 units and during that period only 77 cylinder liners had been scrapped for any reason. At that time many of the original pistons and cylinder liners were still in service and the average age of all these assemblies, including recently purchased power, was 4.7 years.

TRADEMARK "RPM" REG. U.S. PAT. OFF.



How RPM DELO Oil R.R. prevents wear, corrosion, oxidation



- A. Special additive provides metal-adhesion qualities...keeps oil on parts whether hot or cold, running or idle.
- B. Anti-oxidant resists deterioration of oil and formation of lacquer...prevents ring-sticking. Detergent keeps parts clean...helps prevent scuffing of cylinder walls.
- C. Special compounds stop corrosion of any bushings or bearing metals and foaming in crankcase.

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Use Less Steel... Build Lighter Cars with MAYARI R



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It takes less steel, because lighter-than-ordinary sections of Mayari R will do the job. When properly designed for this grade of steel, light-weight cars have equal strength and service life to heavier cars built of carbon steel.

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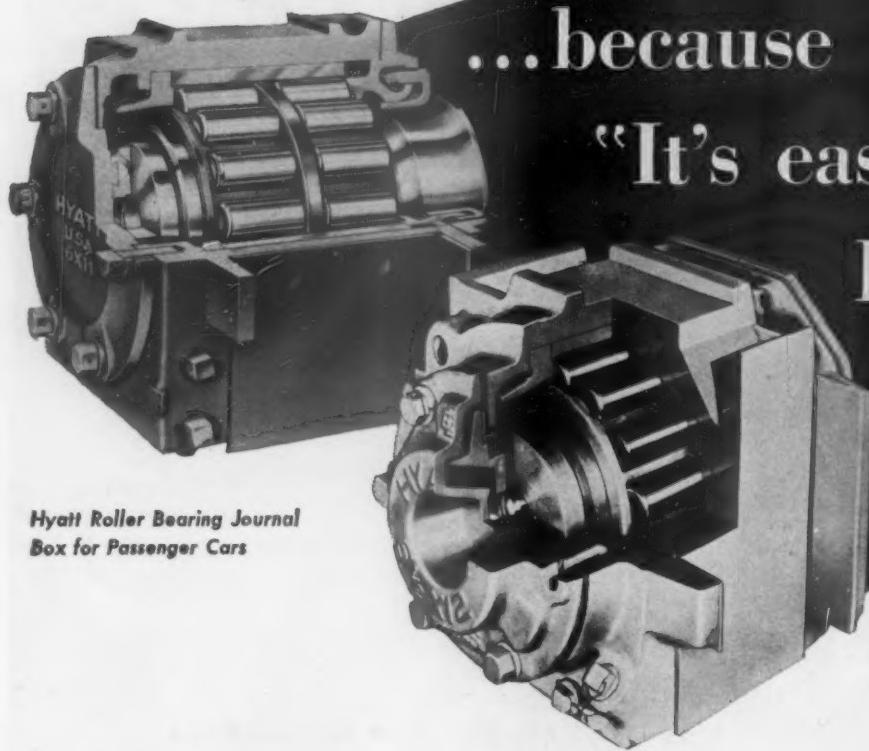


Mayari R makes it lighter... stronger... longer lasting

Preferred

...because

"It's easier with
HYATTS"



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Box for Passenger Cars

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Box for Diesel Locomotives

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motives, and you have some idea why the preference grows constantly.

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RAILWAY AGE

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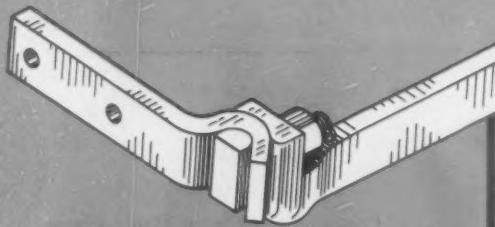
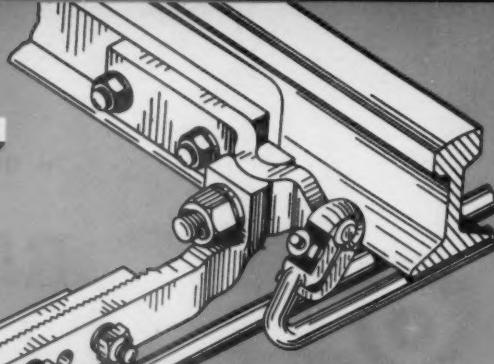
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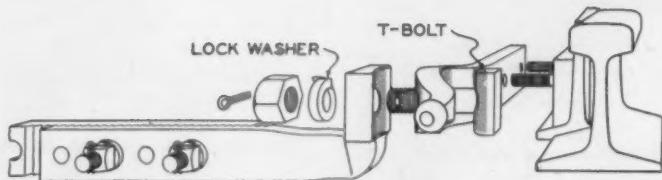
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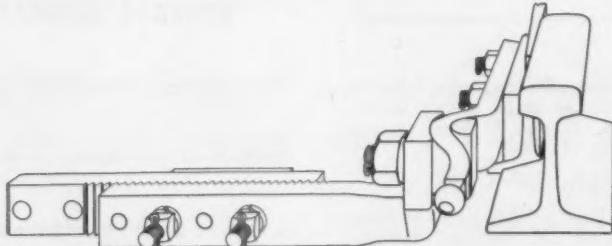
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BLUE BIRD OF HAPPINESS: The bluebird, according to the allegorical fantasy by Maurice Maeterlinck, was the symbol of happiness. Author Maeterlinck probably wasn't thinking of such mundane things as railroad trains, but he might well be gratified, nevertheless, to know that a train named the "Blue Bird" is bringing considerable satisfaction to its Wabash owners. The train itself was described several months ago; in this issue (page 30) is a survey of its first few months of operation—which have produced a definite improvement in the St. Louis-Chicago passenger revenues of the Wabash in a period of generally declining traffic.

DENNEY TO MACFARLANE: Effective with the turn of the year, the presidency of the Northern Pacific goes, as announced several weeks ago, from Charles E. Denney to Robert S. Macfarlane. The business careers and railroad backgrounds of both men are detailed in the article which begins on page 25.

GOOD PROSPECTS: It probably won't be much of a surprise, but there seems to be general agreement that traffic in the first quarter of 1951 will run substantially above that for the corresponding part of 1950. Shippers board estimates indicate a 16.5 per cent increase in car loadings; and their forecast is generally borne out by C.S.D. Chairman Arthur H. Gass, who sees a continuing heavy demand for cars. Both the board forecasts and Mr. Gass' statement are summarized in the news.

MAY HE FIND THE ANSWER: We have nothing but sincere good wishes for William Henry Draper, Jr., who, as our news columns report, has just assumed sole trusteeship of the unhappy Long Island. And we can't resist the temptation to point out that he brings to his new job one rare qualification which may stand him in good stead in his efforts to satisfy the probing politicians and carping commuters who inhabit that sandy and seagirt appendage of New York state. Mr. Draper is, in addition to his many other accomplishments, a well-known and outstanding amateur magician! May he pull the rabbit from the hat!

CONTINUED HEAVY SPENDING: Continuation of the railroads' capital expenditures program, at least through 1951, at the billion-dollar-a-year rate maintained since World War II is predicted by A.A.R. President William T. Faricy in his year-end statement. The statement, in full, is on page 37.

NEW CONTENDER: Judging from both the number and proportion of units ordered, 1950 produced, if prior years had not, conclusive proof of the diesel-electric's victory over steam as the primary source of railroad motive power. But just as the referee of operating economics was raising a figurative wheel (or should it be a piston?) in the traditional gesture of victory, a new competitor was climbing through the ropes to challenge the new champion. It was the

gas turbine electric. And it was a Union Pacific year-end order—reported in this issue's news pages—for 10 such units that boosted the newcomer into the ring.

MOVING JOB: As plenty of railroad men have ample reason to know, moving a family from one location to another is, at best, an unpleasant job; at worst, it's — please supply your own adjectives. But down toward the tip of Florida the Seaboard Air Line is engaged in a far more stupendous moving job—that of shifting its whole Miami yard and shop facilities. Why and how the work is being done, and some of the problems involved, are outlined, with explanatory illustration and diagram, in the article beginning on page 22.

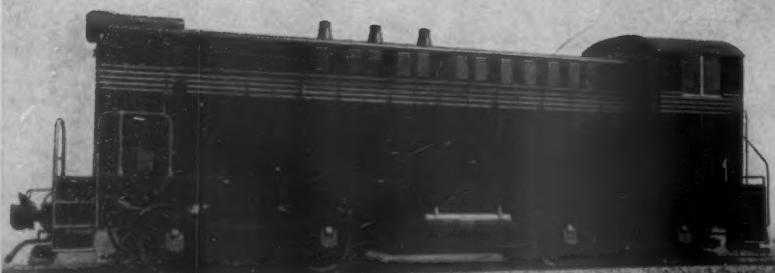
WHY NOT? We don't suppose there's a politician in the country with enough guts to sponsor the idea—but since federal excise taxes on common carrier transportation seem certain to be with us for the duration of the present emergency, why shouldn't there also be an excise tax on private transportation? The idea is discussed editorially on page 20.

WAGE SITUATION: Further details of the wage-hour settlement with the big four operating brotherhoods are given on page 36. Some broader aspects of the settlement are also the theme of the leading editorial (page 19), which points out that the big need is not a "breathing spell" but a real solution to the whole labor problem.

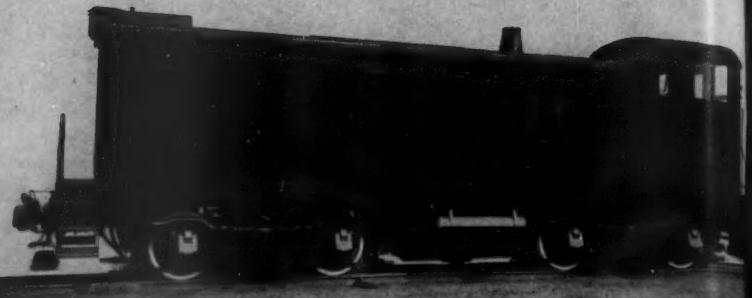
IN THE SPOTLIGHT: Locomotives on order December 1 total 1,657, largest number at any time in 27 years.—Pullman-Standard buys Isaacson Iron Works.—500 hoppers for L. & N. E.—Locomotive orders and installations in first 11 months also exceed total for any comparable period in 27 years.—Bangor & Aroostook to buy 500 reefers.

FOUR YEARS—NO SHOPPING: A little over a year ago *Railway Age* published a description of the transit method of steam locomotive layout, as practiced by the Chicago & North Western on its Class H heavy 4-8-4's. On page 28, herein, is a follow-up on that description, giving some of the results of actual operation—360,000 mi. without classified repairs is one of those results, and some of the others are equally interesting.

RDC's: In its RDC cars, the Budd Company has offered to the railroads a medium of passenger transportation based on a conception which is somewhat at variance with generally accepted ideas on that subject. The basic premises of that conception, the performance for which the RDC cars were built, their service economics and their reception by the railroads were all covered in a paper presented by Budd's Benjamin Labaree before the Society of Automotive Engineers at Chicago last month. Mr. Labaree's paper is abstracted on pages 32-35.



800-hp. Switching Locomotive.



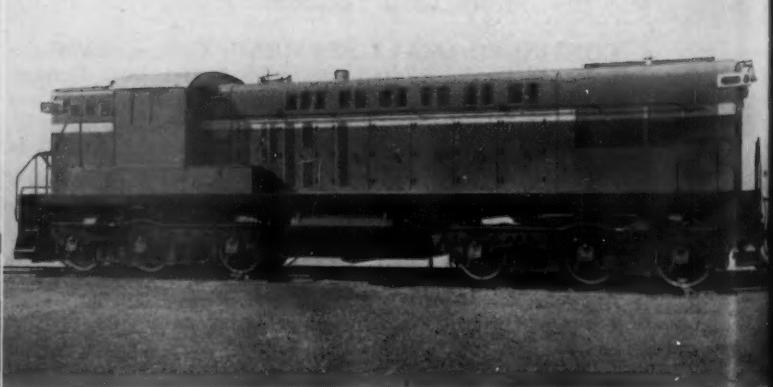
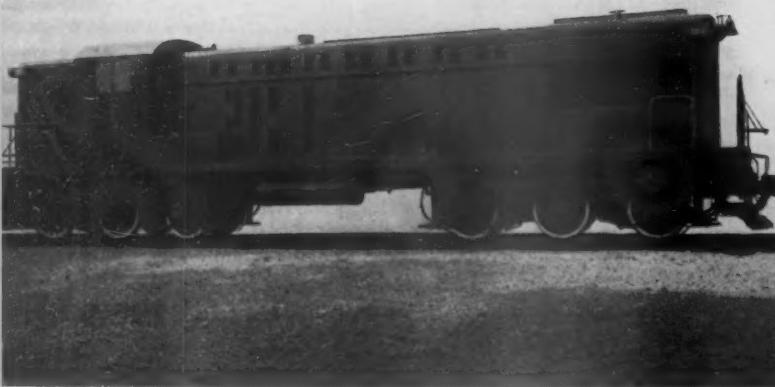
1200-hp. Switching Locomotive.

BALDWIN - Westinghouse

Locomotives
Switching
All-service

1600-hp. All-service Locomotive, 6-wheel trucks, 4 traction motors.

1600-hp. All-service Locomotive, 6-wheel trucks, 6 traction motors.



BALDWIN - Westinghouse



1200-hp. Road Switching Locomotive.



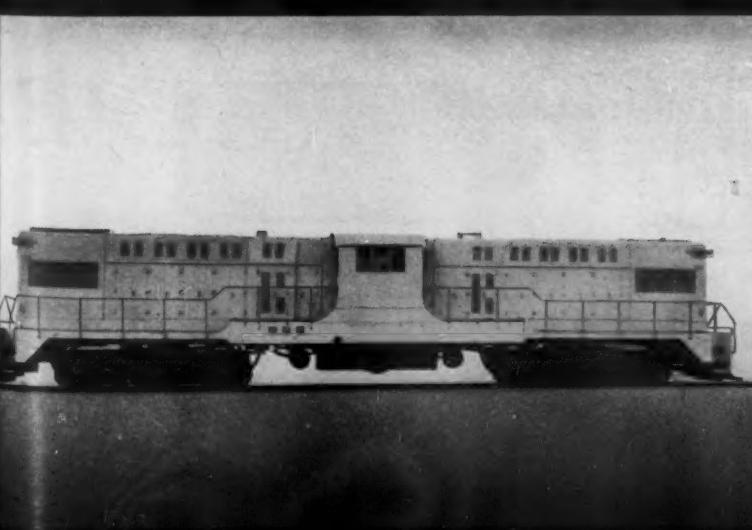
1600-hp. All-service Locomotive, 4-wheel trucks.



2400-hp. Road Transfer Locomotive.

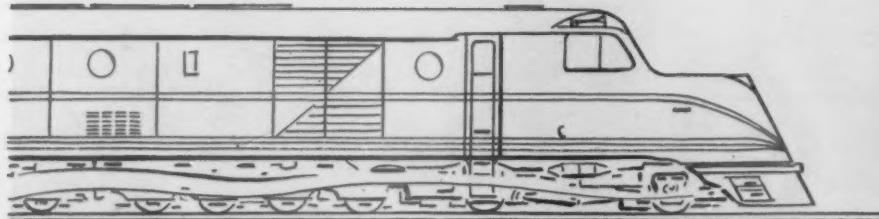


6400-hp. Road Locomotive made up of four (4) 1600-hp. units.

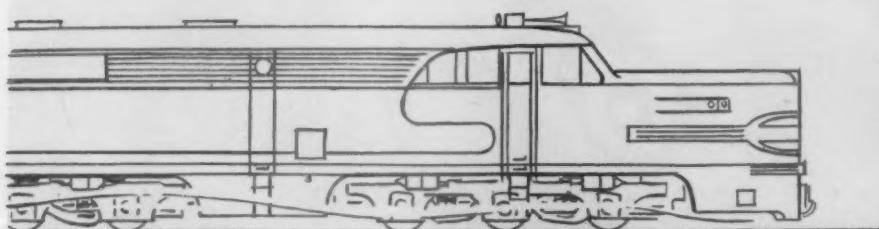
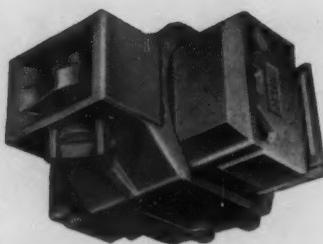


DIESEL-ELECTRIC LOCOMOTIVES

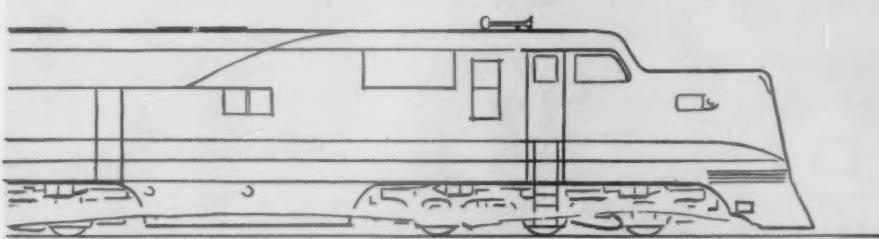
PROTECT EQUIPMENT



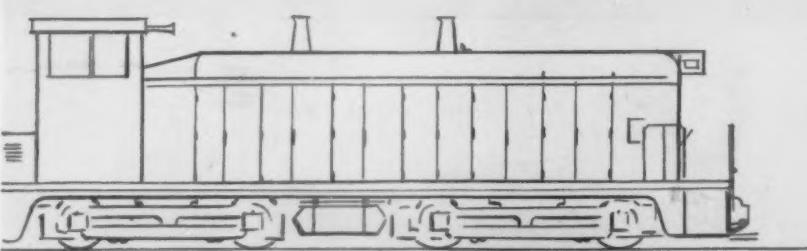
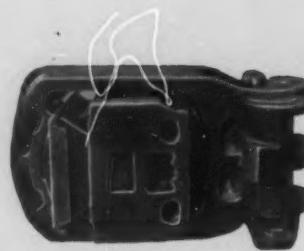
Type M-385 for extremely heavy diesel and electric freight locomotives.



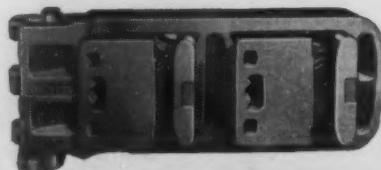
Type M-380 for heavy diesel passenger locomotives and diesel and electric freight locomotives.



Type M-350-A for diesel passenger locomotives.



Type M-375 for diesel switching locomotives.



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TRUCKS • COUPLERS • YOKES • DRAFT GEARS

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NATIONAL Rubber-Cushioned Draft Gears enable you to take advantage of the power of modern diesel and electric locomotives. That's because of:

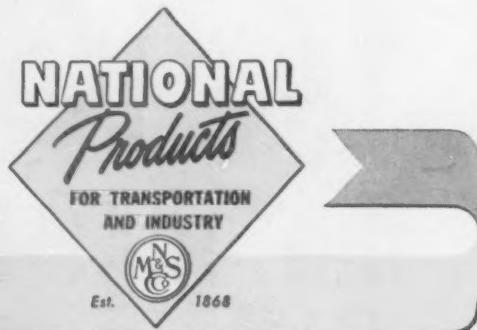
No tendency to creep under sustained tractive force, yet continuously responsive during starting, stopping and running.

Soft acting under slowly applied loads with great reserve of cushioning capacity under shock or impact.

Low maintenance costs result from the effective over-all design and long-life construction of NATIONAL Rubber-Cushioned Draft Gears. They are recognized for their important advantages in operation and maintenance. For your diesel and electric locomotives, specify NATIONAL Rubber-Cushioned Draft Gears.

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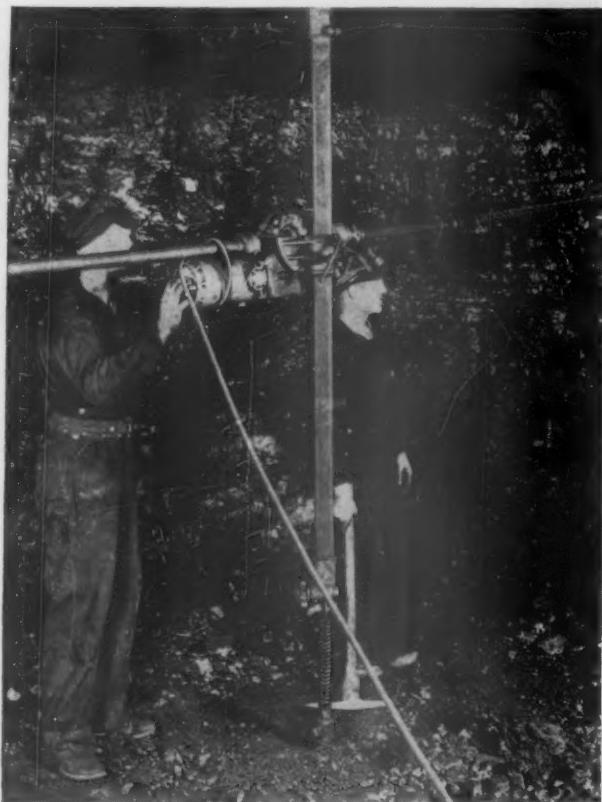
TOUGH



DRAG IT OVER ROCK Many Amerclad Cables are built especially for service like this, and they're a wonderful investment in safety and trouble-free operation. Cables can be furnished with that famous American Steel & Wire Company development—PS Shielding, a conducting rubber tape that eliminates many of the disadvantages of metallic shielding . . . prevents corona discharge . . . provides a fool-proof ground circuit.

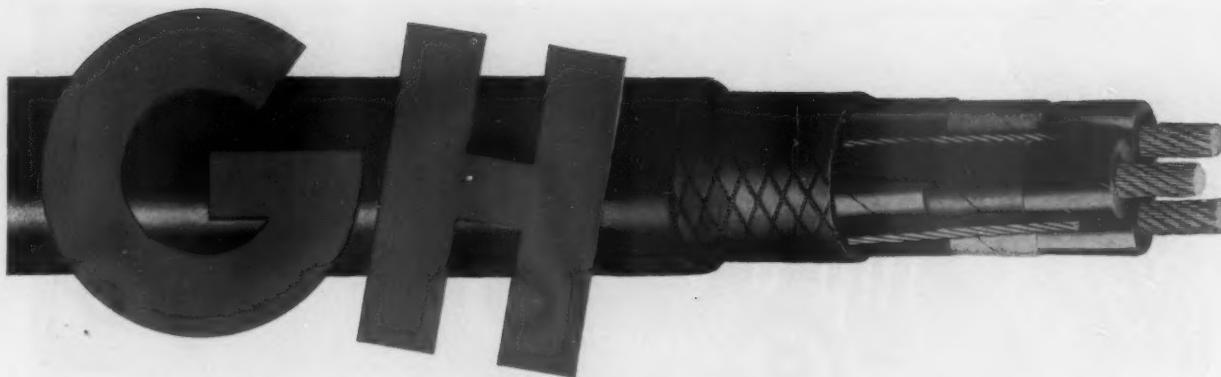


SUBMERGE IT Pit mining often means that Amerclad must be submerged in standing pools of water *besides* being dragged over sharp rock. The tough Amerprene jacket is just the thing for duty like this: it's practically impervious to moisture, earth acids and alkalies. PS Shielding gives extra protection—it clings tightly to the insulation and eliminates the gaps that cause corona discharge.



USE IT ON THE RAILROAD . . . Amerclad Railway Utility Cable does not need a canvas stocking. The flexible compound-strand-conductor is made from well-tinned and annealed copper wires—covered with a separator of paper or cotton for easy stripping. Oil-resistant Amerprene jacket means extra years of service—for generator leads, car-lighting service, train line connectors and battery jumpers.

• • • • AND IN MINES Amerclad Cables and Cords are available for just about every mining need . . . from sweat-proof miners' lamp cord to locomotive gathering cable. Jackets are made from flame-resisting Amerprene—a tough, hard-wearing Neoprene compound that will best withstand mine acid water. We furnish cables that conform to all specifications of the Pennsylvania Department of Mines.



...these Amerclad Cables are Built for Punishment

When you buy Amerclad Cable, you can *pinpoint* your needs. Chances are we can pick a standard cable, right from stock, that will fit your requirements exactly.

For some examples, look at the photographs on these pages. They show some mighty strenuous applications for any type of cable. But each problem was solved with Amerclad—the famous group of rubber jacketed cables manufactured by American Steel and Wire Company.

Standard insulations and jackets are available to withstand heat, oil, flame, sunlight, age and underground

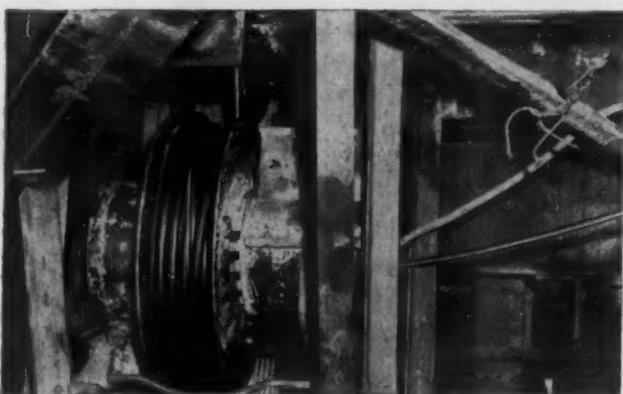
mining service. Moreover, you can obtain the widest range of physical construction—to meet the special conditions of industrial, general, mining and railway installations. Write today for detailed specifications.

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TENNESSEE COAL, IRON & RAILROAD COMPANY, BIRMINGHAM, SOUTHERN DISTRIBUTORS

UNITED STATES STEEL EXPORT COMPANY, NEW YORK



COIL IT The gathering reel in this picture operates continually—24 hours a day. Used in an automatic parking garage, this Amerclad Cable is constantly being coiled and uncoiled. Upstairs, it is dragged through oil and dirt that would ruin all but the very best cables. Service like this is not unusual for Amerclad Cables—they're built to withstand the worst type of mechanical abuse.



FLEX IT Amerclad Welding Cable has to meet some very special requirements. Made from a large number of very fine wires, the cable lies flat, it doesn't kink or snarl and it doesn't strain the operator's wrists while holding the electrode in an awkward position. Like other Amerclad Cables, Amerclad Welding Cable is vulcanized under pressure in a rigid lead sheath. This insures a perfectly smooth surface that resists abrasion and hard usage.



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UNITED STATES STEEL



flip a chilled car wheel

and it's heads you win, tails you can't lose.

take the side of initial cost

The cash savings from the lower price of chilled car wheels are especially welcome right now. These savings are realized on *purchase*; help improve current earning statements.

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What's even more important, chilled car wheels save all along the line, throughout their long life of safe service. They reduce inventory requirements. They are easier to mount, prolong brake shoe life, insulate axles from shock, reduce trackwork wear to the very minimum. Worn out in useful service, they can then be exchanged at extremely low rates for new chilled car wheels.

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ASSOCIATION OF MANUFACTURERS OF CHILLED CAR WHEELS

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Griffin Wheel Co. • Marshall Car Wheel & Foundry Co. • New York Car Wheel Co.
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of coal, air and water!

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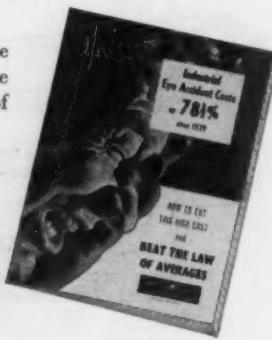
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RAILWAY AGE

EDITORIAL COMMENT

"BREATHING SPELL" IN UNION RELATIONS— QUEST FOR A REAL SOLUTION IS THE BIG NEED

In the settlement reached last week of the protracted wage controversy with the operating unions, the negotiators for the railroads deserve the gratitude of the industry for devoted attention to duty through what must have seemed an eternity of conferring and arguing. Some concessions to the unionists—over and above those to which a duly constituted Presidential board found them entitled last June, possibly became justifiable in part as the months wore on and inflationary pressures continued to operate and to grow in intensity. Nevertheless, the whole proceeding gave further evidence of the complete uselessness in promoting industrial peace of the "fact-finding" machinery provided by the once highly esteemed Railway Labor Act.

Once more the unionists have rejected the findings of a Presidential board and have suffered no opprobrium nor any other inconvenience thereby. On the contrary, their defiance has again been richly rewarded. In view of the success which, experience demonstrates, invariably attend the unions' flouting of the awards of Presidential boards, a precedent of impunity in such defiance has become thoroughly established. All major railway labor disputes are now settled extra-legally at the White House—and always with concessions in excess of those which

the "fact finders" have decided are justifiable. Any labor leader who, nowadays, would be so improvident as to accept a "fact finders'" award would doubtless be dealt with summarily and none too gently by his constituents.

Under present circumstances—which are just about as heavily weighted against the railroads as they could be—the railroads have shown that, from the standpoint of defensive strategy, their cause is ably and devotedly represented. Little progress, however, has been made in the "offensive" or positive direction—i.e., in developing a more realistic attitude by unionists and their leaders toward the railroads' dilemma, when they have to pay extortionate wages, while still trying to be successful in meeting competition so as to avoid diminishing their ability as job-providers. As a lately deceased railway union leader is said to have remarked, in substance: "In industrial relations, the railroads have an efficient War Department, but no group equivalent to the Interior Department for the conservation of their natural resources."

This observation, while doubtless somewhat exaggerated, has, unhappily, only too much truth in it. The railroads have been fighting skillfully a rear-guard defensive action, of which the net result has been to delay a little

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but not to forestall the matching by the railroads of the easy-going wage policies of other large industries which have no competitive problems comparable to those which confront the railroads. Here and there indeed on individual railroads, constructive educational work of a high level of excellence is being carried on with the personnel. Several railroads are training their foremen and supervisors to make them more effective interpreters to the rank-and-file of railroad problems and policies. Still other railroads are carrying on educational programs in "public relations" among employees, which inculcate an improved understanding of the railroads' financial and competitive situation. No one could possibly contend, however, that these programs are sufficiently widespread or intensive—because unionists would not be insisting as they do on wage policies of great danger to the unionists themselves, if the financial and competitive "facts of life" of the transportation business were being effectively "communicated" by management to the rank and file.

The principal reason why unionists on the railroads and in other large industry are so poorly informed about their true interest in such things as profitable and efficient operation by their employers is that there is too much talking and thinking about employees' economic motives, to the exclusion of other interests which are just as powerful and important. It was said long ago that "man does not live by bread alone"; and he is not motivated solely by the amount of his semi-monthly or weekly pay-check either.

The union leaders go out for more and more money and less work—not because it is only more money and less work that their members want, but because more money and less work are the only objectives the unions know how to attain. More money and leisure for their members cannot be the primary motive of the union leaders—what the leaders want first, like everyone else, is security in their jobs and a feeling of confidence from satisfactory performance. However, as the unions are organized, the leaders can feel successful and secure only by making the unions procure more of the only things they have the machinery to achieve, namely, wage increases or less work or both. It is extremely doubtful whether the urges of unionists for "more"—more of just what they are not quite sure—would be fully satisfied, even if the entire gross revenues of all industry were handed over to them. If a man is starving to death for vitamins, his hunger is never going to be appeased by giving him more and more food which contains none of the missing elements.

The industry leaders who first find out what it is that their employees really want from their jobs—beyond a reasonably secure subsistence—and who proceed to fulfill these wants, will largely solve the so-called "labor problem." And unless the inflationary pressure of endless upward adjustments in wage rates with no commensurate increase in production is thus relieved, the system of non-coercive private enterprise cannot survive.

Karl Marx based his whole diabolical scheme for world

revolution on the assumption that economic motives are the only motives there are—and the capitalist world plays right into the hands of Marx's disciples by giving tacit assent to this doctrine—which only a limited degree of observation of human conduct would quickly disprove. What people really want is power—of all kinds, not merely economic power. They want power over themselves or over other people—and not just economic power—command over goods and services. Certainly it is not an economic motive that draws a man to a military career (not in America, at any rate)—yet there is no dearth of candidates for vacancies at West Point or Annapolis. It is not an urge for economic power that gains recruits for the ecclesiastical profession or for politics—yet there is no scarcity of aspirants for these vocations either.

Economic power—such as that which was possessed by leaders of large industry before the advent of dominant unionism, confiscatory income taxes, irredeemable paper money and general militarization—has in the past three decades declined greatly in its relative importance. To maintain leadership in large enterprises today, the vestiges which remain of economic power alone are increasingly inadequate. For strong industry leadership to continue, leaders need to supplement their waning economic power by increasing their skill in other means of enlisting and retaining cooperation. There are not many books which convey enlightenment in this inadequately explored area, but there are a few. One of them, already mentioned some time ago in these pages, is entitled, "On Power," by Bertrand de Jouvenel. Another—a shorter, simpler and more immediately practical treatise—is by Bertrand Russell, the English philosopher, and is called simply "Power." The Russell book, among many other gems of insight, contains the following remarkable observation:

"I wish to consider . . . the feebleness and slowness of movement, analogous to that of old men, which is often seen in old organizations . . . What makes an organization grow old is habit based upon success; when new circumstances arise, the habit is too strong to be shaken off."

WHY NOT AN EXCISE ON PRIVATE TRANSPORTATION?

The federal tax on common carrier passenger transportation was originally imposed in 1941, primarily as a deterrent to travel; secondarily as a source of revenue. The tax on for-hire transportation of freight was imposed in 1942, at the rate of three per cent, for revenue purposes. The passenger tax, initially set at 5 per cent, was increased to 10 per cent in 1942, and to 15 per cent in 1944. After the war, the common carriers sought removal of these levies on the ground that they were unwarantly prejudicial to common carriage—and that, as far as the passenger tax was concerned, the principal

purpose for which it was intended no longer obtained; on the contrary, there had arisen a real need for the stimulation of travel.

Before the outbreak of the fighting in Korea there were before Congress a number of bills which would have reduced or eliminated the federal taxes on transportation, and favorable action on one of the proposals seemed a virtual certainty. However, when there arose the critical need for additional federal funds to carry on defense preparations, these relief measures were shelved.

Private carriage, relatively wasteful of facilities as it is, escaped any comparable tax burden in both World War II and in the postwar period. It now appears that it will again go scot-free in the present emergency. Since the tax on for-hire carriage is to be retained as a revenue-raiser, it seems no more than just that there should be a comparable excise on private transportation. Since the cost of fuel represents about one-third of the cost of operating a passenger automobile, a 45 per cent excise on highway motor fuel—above present levies—would be needed to collect revenue at the rate now levied on for-hire passenger travel. A lesser levy, to correspond to the three per cent tax on freight transportation, could be laid upon fuel consumed for private movement of freight. It would not be just, of course, to lay such fuel taxes on for-hire vehicles, which are already making their contribution in the form of existing taxes on for-hire transportation. Based on 1949 sales of motor fuels, such a tax as that outlined here should produce an annual revenue of about \$3 billion, after allowing for the exemption of fuel consumed by for-hire and publicly owned vehicles. A comparable tax would, of course, have to be laid on fuels other than gasoline.

Collecting such a tax would be a burden on the retailers of gasoline. Possibly an equivalent levy could be collected in some other manner—a mileage fee, for example, but that form of excise would be easier to evade. It is true that the operator of the private vehicle is already paying a federal excise on gasoline—but collections from this source are offset by federal expenditures on highways.

A high excise tax on private travel would admittedly be a political "hot potato." On the other hand, it might even be welcomed if it were demonstrated that, as a major additional source of revenue, such a levy would ease personal income tax exactions and protect take-home pay. Anyhow, common carriers cannot be hung for making this suggestion—because they have just got to do something to protect their patrons from the gross discrimination in treatment which now afflicts them. If there is a more equitable method of resolving this injustice than the method suggested here, then what can it be? There is little danger that automobile transportation would suffer seriously from such an impost, because the proportion of total travel the automobile has captured is simply phenomenal. Passenger-miles by automobile increased 33 per cent in a single year, 1949 compared to 1948. Even the airlines, with record traffic in 1949, suffered a decline in the proportion of the national

total of passenger-miles they produced in that year, compared with 1948. Private transportation of freight is likewise expanding rapidly, and one of the reasons is the discriminatory tax on for-hire transportation.

ATOMIC POWER FOR LOCOMOTIVES?

An answer to the question, "What would we do with it if we had it?" is attempted in a new book, "Economic Aspects of Atomic Power," which is an exploratory study contributed to by many noteworthy scientists and engineers. The study was initiated by the Committee on Social and Economic Aspects of Atomic Energy of the Social Science Research Council and executed by the Cowles Commission for Research in Economics. It was made under the direction of the authors, Sam H. Schurr and Jacob Marschak, and the book was published by the Princeton University Press.

More accurately, the book estimates the economic and social effects which may be expected when it becomes practicable to produce electric power and other forms of energy at controlled rates from an atomic pile. A few basic facts show the present status of this development and indicate potentials.

First, useful atomic power has not yet been produced, except perhaps as a by-product of the operation of research reactors, nor has a commercial atomic power plant been designed. The greatest potentials appear to stem from the possibility that atomic fuel may be able to reproduce itself as it burns, that its cost may be very low per B.t.u. or per kilowatt-hour and that it is practically weightless. Its shipment would involve very small transportation costs. Probably the greatest limitation to the development of atomic power is the protection of personnel and the disposal of radioactive waste products.

At present, the shield required for a comparatively small reactor must weigh at least 100 tons. The study indicates that clearance limits for a locomotive would almost certainly preclude the application of a pile, of the kind now known, to railroad motive power. The study further states that, in addition, several economic considerations, which seem to indicate that the cost of the locomotive nuclear reactor will be relatively high with relation to one for a stationary plant, argue strongly against its development, at least until long after application of atomic power in industry is accomplished.

Assuming the correctness of this conclusion, the only way for the railroads to use nuclear energy for traction power would be through the medium of electrification. Such applications in turn must depend on studies for specific applications. Rising costs of coal and oil, plus increasing traffic density, plus technical advances such as the use of the locomotive rectifier with 60-cycle power, conceivably could make electrification more attractive. But it becomes quite evident that no railroad need modify its present motive power program because of the potentials of nuclear energy.

MIAMI TERMINAL BEING SHIFTED FOUR MILES

Seaboard's shop and yard facilities, now in the middle of a large airport, are in the process of being moved to a new uncongested area



Construction view of the Seaboard's new terminal layout at Miami, looking north, as seen from the air. Loop track in foreground will be used primarily for turning passenger trains

When a large new terminal layout of the Seaboard Air Line at Miami, Fla., for servicing and repairing locomotives and passenger-car equipment is completed on June 1, 1951, it will be the first such terminal to be designed "from scratch" with all-diesel operation in mind. The new shop and yard area is located four miles north of the present terminal, which will be completely dismantled to permit the area occupied by it to be incorporated in the Miami International Airport, which now entirely surrounds the terminal.

This multimillion dollar project had its beginnings in 1947, when the Dade County Port Authority (the governing body of the Miami International Airport) approached the Seaboard and suggested that the railway terminal, which divided the airport into two sections, be removed so that the property could be acquired for airport purposes. The situation was exceptional in that the north-south runway of the airport, plus a plane taxiway between the north and south sections of the field, actually crossed the west end of the railway yard at grade, and the consent of the airplane dispatchers had to be secured before train or engine movements could be made on the tracks crossing these runways. This situation came about during World War II, when the Army was using the airport. Expansion of the airport to the north was impossible because of a broad drainage canal, so an agreement was reached permitting construction of the runway across the Seaboard's yard.

When the Seaboard built its extension into Miami and completed its shops and yards in 1926, the terminal was considered far out of town. The Miami metropolitan area has since increased some tenfold in population and the city has mushroomed to transform what were open fields into built-up and congested areas. As shown on the map, the present terminal is situated on a branch line that continues south to the winter vegetable producing area surrounding Homestead, Fla., and is immediately west of the junction of that line with the main line. Expensive and complicated operations would have been required to locate the new terminal farther away from the main line on this branch. Also, since a solid line of warehouses and factories has developed along the main line from the junction south and east to the passenger station, it was not possible to construct a new terminal in that area.

North of the junction, the Seaboard traverses thickly settled areas of the town of Hialeah, which to all intents and purposes, except for a separate city government, is a part of Miami. Thus, the selection of a new site for the terminal offered many problems. Nonetheless, the Seaboard agreed to find a new site and to turn over its present terminal property for airport purposes.

While the port authority agreed, in principle, to defray all expenses involved in dismantling the present terminal and replacing it in kind at a new location, the negotiations to bring this about were protracted and complicated, but eventually the details were ironed out to the satisfaction of both parties. Several sites were considered, but the one chosen is immediately adjacent to the main line, seven miles from the Miami passenger station and four miles north of the old terminal. The latter comprised 94 acres and the Seaboard purchased 94 acres at the new site with money supplied by the port authority. The railway also purchased 62 additional acres with its own funds for industrial locations and to provide for future expansion.

There were 20 small homes on the property, all of which were torn down, except one being used by the resident engineers as an office building. The only structure of any size on the property was a concrete pipe plant and this was dismantled and moved to a new location.



The existing Seaboard terminal within the confines of the Miami International Airport will be removed except for a length of track to be used as an industrial spur

On its west side, the new location was within the city limits of Hialeah for its entire length, to the depth of a city block. Under Florida laws, it was necessary to request the state legislature to pass an act restoring this area to Dade County. After considerable negotiations, this was accomplished. No difficulty was experienced in closing several streets that crossed the new yard. The air view of the new terminal property shows this graphically and also shows, at its extreme top, an important through highway, 103rd street, where an overpass is now under construction across the tracks.

The move will involve the construction of new yard and other tracks amounting to a total of 22 miles. The trackage comprising the present terminal will be removed in its entirety, as well as part of the track leading from the west end of the present yard. To reach the Homestead line, four miles of new main track have been constructed around the eastern and southern sides of the international airport, as shown on the sketch. This was put into service December 15.

At present, the main line is double-tracked from the Miami passenger station to a point north of the Hialeah passenger station. This double track is being extended two miles north to the new terminal to facilitate the additional switching moves that will be necessary.

The entire project required 342,000 cu. yd. of grading, which has been completed. A borrow pit was found $\frac{1}{2}$ mile northwest of the new terminal and the material was transported over a private road built especially for this purpose. Since a new railway bridge was necessary over the canal immediately north of the new yard, this was built early during the project and was provided with a deck so that it could be used by the heavy earth-moving machines that could not be moved over the public highways. Because the country is very flat, no particular problems were encountered in any of the grading work.

The water supply and drainage posed some difficulties. A water main two miles long had to be built to bring water for sanitary purposes into the new yard, but two wells sunk at the site give sufficient water for other purposes. The site of the new diesel shop is so near sea level that it is not possible to obtain gravity drainage during extreme high tide from all of the pits. A drainage ditch being provided along the east side of the shops grades down until the flow line is below sea level by the time it

reaches the north end of the layout. At this point, the water will be lifted and passed through an oil separator before continuing on to the canal at the north end of the yard in an open drainage ditch.

Layout Involves Balloon Track

The new yard will have 16 miles of tracks, some of which along the east side of the layout will be set apart for handling and servicing the passenger trains that move into and out of Miami. A feature of the track arrangement is the balloon or loop track at the south end of the yard, on which these trains will be turned. The track forming the loop has a maximum curvature of 10 deg.

The North Florida division of the Seaboard, which operates into Miami, is nearly 100 per cent dieselized. During the height of the last tourist season, which in Florida is also the height of the citrus fruit and winter-vegetable season, only a few oil-burning steam locomotives were operated into the terminal. The high section of the diesel shop at the old terminal, 50 ft. wide by 160 ft. long, will be moved to the new site, along with the existing 15-ton traveling crane. The building is to be extended 10 ft. on one side to supply additional workshop floor area, plus another 29 ft. for wash and locker rooms, offices and toilet facilities. Whereas only one track passes through this portion of the present shop, a 42-ft. by 160-ft. section will be added at the new location to accommodate two tracks equipped with inspection pits, working platforms at different levels and a 5-ton crane.

As relocated the shop will include a 20-ft. by 160-ft. bay equipped with a 6-ton crane for handling wheels and traction motors released at a drop pit at one end of the building.

Lift bridges will span two of the inspection pits to permit the movement of men and materials between platforms at the cab-floor level. In general, the shop is of steel-frame construction, with corrugated asbestos siding and built-up roofing, but the wash and locker rooms will be of concrete block construction.

A trestle is being built for unloading sand from drop-bottom cars. The sand will then be shoveled into a hopper at the foot of a conveyor which will deliver it to a dryer, whence it will be dropped by gravity to a sand drum and then blown up to a five-ton overhead dry sand tank to be located between two diesel locomotive servicing trucks. The dry sand tank will be supported on a steel column and will have spouts for servicing both sides of the diesels on each of the two tracks. Diesels going into the shop will be serviced with fuel and water at the fueling platform, then supplied with sand, and those requiring washing of trucks will be routed over a track on which a locomotive wash pit will be located.

Pumps and piping will be supplied for draining the dirty oil from the crankcases of the diesels and for supplying new oil. Separate storage will be provided for lubricating oil to be purchased from three different companies, and arrangements have been made in the piping so that the oil of the different companies will not be mixed, thus permitting an accurate comparison to be made.

The facilities for repairing freight and passenger cars will include a drop pit and a 160-ft. inspection pit. An air-conditioning test pit will be provided with equipment for rotating the wheels under a passenger car, which are belted to the air-conditioning equipment, so as to operate these appliances in the same manner as when the car is operating in a train. Four tracks are to be assigned for servicing passenger trains, one of which will have a 1,200-ft. inspection pit. The area between these tracks will be paved and equipped with water, steam, compressed air

and electric service; the latter including floodlighting of the entire passenger-car servicing area.

The car repair layout will include three buildings of concrete-block construction, with steel-frame roof systems covered with corrugated asbestos-cement sheets, and concrete floors. One of the buildings, to be known as car-shop building No. 1, will include office and toilet facilities for the foreman and his assistants and toilet rooms for the car-shop workmen. Car-shop building No. 2 will include wash and locker facilities for all the car-shop employees, divided into separate rooms for white and colored men and colored women. The third building will be used by Pullman employees.

Other New Buildings

While power ventilation is provided for all of the buildings in the terminal area, special study was given to the ventilation of a structure housing the yard offices and a commissary. This will be of concrete-block construction, with a reinforced concrete frame. The outside will be finished in stucco. A one-story portion of this building will contain an assembly room and the offices of the yard-master and his forces. The first floor of a two-story portion will contain a commissary, kitchen and lunch room for employees and wash and locker rooms for trainmen. Sleeping quarters for trainmen will be located on the second floor, the area being divided into cubicles by metal partitions and curtains. The sleeping cubicles in the center will be supplied with fresh air pumped into a duct system with openings into each of the cubicles, arranged so that each occupant can regulate his own air supply. The cubicles adjacent to the outside walls will be supplied with fresh air from the windows. Power ventilators exhaust the air through ceiling grills from the entire floor area.

The first building being constructed is a storehouse with platforms, so that the contractor might use it for storing his materials during the construction of the other buildings. This building is likewise of concrete-block construction, with a steel frame roof system covered with corrugated asbestos. Storehouse platforms and floors are of concrete, at car-door level, placed on earth fill.

The facilities will include a powerhouse which, in addition to a 350-hp. steam generator, will house the fuel-oil pumping and filtering equipment, an air compressor, to be moved from the former location, and water-treating equipment for the water to be used in the stationary steam generator as well as the generators of the passenger diesels.

A 1,000-g.p.m. fire pump, to be moved from the old terminal and installed at one end of the new plant, will be supplied directly from a deep well. The service water pumps, located adjacent to the fire pumps, will be supplied from an independent well and will maintain pressure automatically throughout the shops on the service pipe lines, which will also be used as fire-protection mains. The water for drinking purposes and for servicing the trains will be stored in a 50,000-gal. tank elevated 70 ft., and supported by the same columns as a 35,000-gal. tank for storing treated boiler and radiator water, but the sanitary water will, of course, be distributed throughout the shop area through a separate pipe system.

The project is being carried out under the general supervision of W. D. Simpson, chief engineer. J. C. Williams, assistant engineer of buildings, is in direct charge of the work, and R. B. Carrington is resident engineer. The M. R. Harrison Construction Corporation, Miami, is the general contractor. The W. T. Price Dredging Corporation handled the grading, and the track-construction contract was awarded to the Bailes-Sey Contractors, Inc., Jacksonville, Fla.

Retiring president becomes consultant after 11 years' leadership, following a decade heading the Erie; new chief groomed by long service as regional vice-president



Charles E. Denney



Robert S. Macfarlane

Northern Pacific—Denney to Macfarlane

On December 31, Robert S. Macfarlane, executive vice-president of the Northern Pacific since 1947, will, as reported in the November 18 *Railway Age*, become president of the 6,889-mile road, succeeding Charles E. Denney, its head since 1939 and former president of the Erie.

After January 1, Mr. Denney will remain available to the N.P. in a consulting and advisory capacity and will continue to serve as a director. He intends to make his headquarters at that road's uptown, off-line traffic office at 630 Fifth Avenue, New York, and will live, with Mrs. Denney, two blocks away, "where I can keep in close touch." He will do whatever is best for the road and, apart from a few short trips, intends to be on hand in case he is needed. During the past 20 years, he calculates, he traveled an average of about 75,000 miles a year; hence he has no pent-up longing for trips. One son lives in Berlin, Germany, and the other in New York.

When asked to set forth his views on (1) the future, (2) the administration and (3) the situation in Korea, Mr. Denney expressed the opinion that "changing of the guards" is no time for either the new or old president "to sound off on other peoples' business." Indeed, he wondered if there ever is a time when a corporation head ought to so "sound off," and let drop the hint that, personally, he thinks too many businessmen think they know more about what they don't know than what they do know. He is still very busy directing the Northern Pacific team—right up to December 31—and, to prove it, waved a fat, blue-jacketed dossier which will budget the road's expenditures next year. Mr. Macfarlane was equally unwilling to pontificate—for the same reasons, and for the additional one that, to his way of thinking, a brand-new president ought just to say "hello" and get to work.

Versatile Background

Mr. Macfarlane, at 51, is a relatively young man to head up so large a system as the N.P. He is youthful in appearance, and converses with a quiet, persuasive enthusiasm which marks a man looking ahead to the

future with confidence. He was born in Minneapolis, but moved as a boy to Seattle, where he has spent most of his life. Like his predecessor, he had to earn money for his education—at Brown University and at the University of Washington. His freshman career was interrupted by World War I; five days after this country entered the conflict, he enlisted in the Navy as a seaman, being mustered out two years later as a lieutenant (j.g.). After graduation from college in 1922 with the highest possible academic honors—a fact he insists be soft-pedaled—he entered the law profession with Chadwick, McMicken, Ramsey & Rupp, in Seattle, and within a few months became chief deputy prosecuting attorney for King County. From 1925 to 1930 he practiced law as a member of Schwellenbach, Merrick & Macfarlane and, in 1930, took office as judge of the Superior Court of King County. In 1934, as the country was beginning to climb falteringly out of depression, he resigned from the bench to enter the railroad business as assistant western counsel for the N.P. at Seattle, and in 1937 he became the road's western counsel.

The "Far End"

The N.P. as the oldest northern transcontinental is a pioneer business enterprise in the Pacific Northwest. It owns about 40 per cent of the railroad mileage in the state of Washington. Its western lines (west of Livingston, Mont.) are far distant from headquarters at St. Paul and are concerned with regional problems which require the highest order of executive attention. Hence, like other large roads, it needs, at the "far end," an officer who is able to tackle every problem which arises, deal with all departments and serve as the representative of the president in the region. In 1940, as the road was girding itself to carry its extraordinary war load and serve the fastest growing region in the country, Mr. Macfarlane, while remaining as western counsel, took on the added duties of assistant to the president. This year marks, he asserts, "the end of even the memory of a judgeship" and the beginning of his education in the full-rounded duties of a railroad operator. In 1943 there

came the further addition of "vice-president" to his title, and, in 1945, a directorship in the road. Two years later he was made executive vice-president.

During these years in Seattle, Mr. Macfarlane found time to take on a long list of civic responsibilities, including 17 years of service on the school board, presidency of the city Chamber of Commerce and chairmanship of the community fund. In 1933 he received the state Junior Chamber of Commerce's "distinguished service award."

Throughout his period of service as executive vice-president, Mr. Macfarlane took progressively deeper bites into management problems. During most of 1949, he commuted between Seattle and St. Paul, spending one week at G.H.Q. and the next at Seattle, traveling cross country over the week-ends. At the beginning of 1950, looking forward to system jurisdiction, he moved his residence and headquarters to St. Paul and set about to "understudy" the duties and problems of the president. The Macfarlane family numbers six. Two daughters are in school and one is married. Robert, Jr., is also at school—and registered in the draft.

Four Presidents "Educated"

In addition to training his successor, Mr. Denney has had an important part in the "making" of three railroad presidents—William White of the Lackawanna, Lynne L. White of the Nickel Plate and Paul W. Johnston of the Erie. In Mr. Macfarlane's opinion, he made a good teacher because he engaged in the railroad business as a whole (and not as a specialist), because he had the endurance to work hard for long hours, and because he handled first things first. His method of training was not to put the younger officer off into a corner on research or "staff projects," but to work with him, in partnership, on every type of problem that came up. When a man was given the Denney stamp of approval, he had jostled with every demon a railroader can face.

Mr. Denney got into railroading because he needed money to pay for his education as a mechanical engineer at Pennsylvania State College; he worked summers at the plant of the Union Switch & Signal Co. at Swissvale, Pa.; liked the business—and the money—so much that he entered full employment with the company after three years of college. (He got his degree 45 years later, "as of 1900.") While fully trained in the technical aspects of the signal business, Mr. Denney came to prefer to concentrate on the problems of application and spent a great deal of time out on the railroads studying the economics of train operation. He also learned the art of salesmanship—in a time, he recalls, when an order for six low-voltage semaphores was "big business" and many railroaders doubted if the motors on such a current could lift the signal blades. In 1905, when only 26, he seized the chance to get into application and maintenance directly when he became assistant signal engineer for the heavily trafficked Lake Shore & Michigan Southern (now New York Central). The following year he was promoted to signal engineer for the entire road—an achievement which he modestly attributes to "being in the right place at the right time."

In 1913, he became special engineer to the vice-president, New York Central—Lines West of Buffalo, and, a year later, went back to the signal company for another spell of selling and applying. The current furor then was automatic train-control and "everybody in the country was inventing equipment." He recalls that a Denver physician, asked by the Interstate Commerce Commission to explain his gift to railroading, testified that his occupation was "delivering babies and stopping trains." During that period Mr. Denney guessed that, when the

dust had settled, the railroads and the established signal companies would come forth with the answer; they did.

Meanwhile, the Van Sweringens had purchased control of the Nickel Plate from the Central and had put in J. J. Bernet as president to build up that decaying property to the highest standards. In 1916 Mr. Denney was called to assist in this project as special engineer to the president and to exploit his interest in the economics of train operation and control to the limit. There came successive promotions, each with a wider range of interest, as the Van Sweringens hammered their system into shape—assistant to president in 1917; vice-president and general manager in 1920; vice-president of the Erie in 1927; and, finally, president of the latter road in 1929.

Working for the Vans

Mr. Denney recalls that working for the Van Sweringens was an exciting experience; Bernet was a great leader, a man who enjoyed seeing things built up and get better about him. The famous brothers were, according to Mr. Denney, "hard-working, careful builders, who left things better physically than they found them." Like most builders, they "over-extended" and the depression caught them off balance. Unlike speculators, "they themselves went down with the ship."

In October 1939 Mr. Denney resigned as head of the Erie, to become president of the Northern Pacific. He left a road serving a highly industrialized area, with a heavy suburban passenger business, complex terminal operations (including the New York harbor marine operations) and a dense traffic, to go to a transcontinental, running for the most part through sparsely settled areas, and dependent currently upon agriculture for about 30 per cent of its revenues and upon lumber for another 20 per cent. His fortunes now hung to a larger degree on the whims of weather and moisture, in contrast to the man-made trends of industry. "I could always come up with a highly accurate measure of the crop—after the harvest," he is quoted as saying.

But a short time was to pass before the N. P. was to feel the load of war traffic. As one of the country's seven transcontinentals, its traffic was to increase out of all proportion to that of the railroads as a whole. Mr. Denney had plenty of opportunity to use his experience with the heavy densities of the East and to grapple with the problem of line capacity. Now, as he relinquishes active direction of the property, the prospect of still greater military activity in the Pacific appears as a possibility. He is of the opinion that the railroad is "absolutely" prepared for a bigger load than it handled in World War II. He points to the N. P.'s investment of more than \$150 million in additions and betterments during the last decade and the working-out, by experience, of new operating techniques.

"A Straight Line . . ."

The retiring president, as noted, is not a specialist. His early career, naturally, created a lifelong interest in the application of signaling to train operations, but he claims to be "rusty" on technical developments and somewhat aghast at electronics. If he can be said to have a predilection for any particular department of railroading, it would be engineering and maintenance-of-way. During his presidency, almost 300 curves on the N. P. have been eliminated or reduced in severity. There have been, in addition, a substantial number of major line changes, one involving the construction of 16 miles of new line. He believes any curvature that forces routine braking of freight or passenger trains ought to come out, unless,

HERALDING A CENTURY OF PUBLIC SERVICE, this bronze medallion will be the symbol of the Illinois Central's 1951 centennial celebration. Designed by the sculptor Julio Kilenyi, the medallion features, on the reverse side, a map of the railroad and its territory surrounded on the left by a festoon of laurel leaves signifying honor and dignity, and on the right by oak leaves for valor and strength. Every officer and employee of the I.C. will receive a pocket-size medallion early next year. Arrangements have been made with the road's watch inspectors to engrave any employee's name on the reverse side without charge. In addition, 150 centennial markers, 11-in. images of the medallion faces, will be placed at selected locations along the 6,500-mi. system—with appropriate local ceremonies



as in mountainous territory, the cost is prohibitive. The N. P. has followed the policy of giving clinical treatment to a curve when it comes due for reballasting or new rail, on the theory that "if you don't do it then, you never will." This policy will continue, says Mr. Macfarlane, although the greater part of the potential has been accomplished. "Do it when you come to it" will continue to upgrade the line characteristics of the N. P. in the years to come.

The road now operates 38 road diesel-electric locomotives, 9 road switchers and 63 yard switching diesels. All main-line and Portland-Seattle passenger service is diesel-powered. Freight diesels are concentrated in the mountain areas between Auburn (Seattle) and Livingston and between Glendive, Mont., and Fargo, N. D., respectively, being assigned to the trains "where they will do the most good." Diesel helpers are used in the Cascades, while heavy modern steam power, displaced there by diesels, is now assigned to whatever helper service still remains necessary in the Rocky mountains. Current motive power policies of the road are conditioned by the fact that it purchased a large fleet of efficient and large steam locomotives during the thirties and added to it new 4-8-4's and 4-6-6-4's during World War II.

Also, from its wholly owned subsidiary, Northwestern Improvement Company, it purchases Montana coal mined at an extremely low cost. Dieselization of road freight service will progress as the economic life of modern steam power runs out and in accordance with relative costs.

On Competition

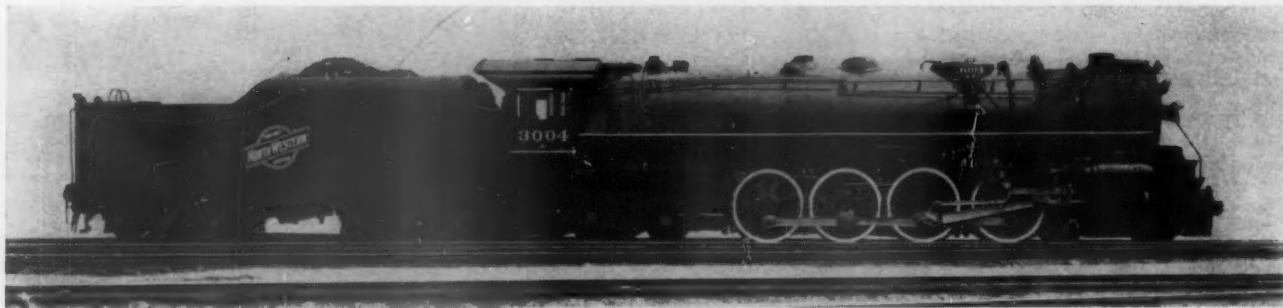
With regard to diversion of traffic from the railroads, the outgoing and incoming presidents of the N. P. are "concerned," but not hysterical. It is their view that, "If the telephone had come first, there would have been less telegraph and if the internal combustion engine had been developed earlier, the railroads would not have built to handle some of the traffic which it was necessary to handle when competing with the horse and wagon. The permanent loss of some short-haul traffic to the highways is fully recognized."

Take less-carload merchandise. The N. P. proves it

wants it by building a string of ultramodern freight stations at key points along its main line—designed specifically for fast, modern mechanical handling. It has invested large sums in platform equipment. But generally the new stations are not as large as their predecessors. In short, the railroad has equipped itself to handle that part of small-lot freight on which a railroad does a good and profitable job—not everything. With modern methods it believes it can cut costs—or rather, in these inflationary days, keep them from going higher—and has a reasonable chance of recapturing longer-haul shipments. Its subsidiary motor transport company, one of the earliest in the country, performs chores for the railroad in way-freight substitute service, provides pickup and delivery at selected points and runs buses where passenger losses can be relieved thereby. No large-scale expansion of motor service is currently planned; it will be used to serve and assist wherever individual opportunities present themselves.

The Old-Time Religion

Mr. Denney started to interest himself in traffic-getting back when he headed up operations on the Nickel Plate. His boss, J. J. Bernet, although a stickler for detail and deeply interested in the railroad as a physical entity, was also a great salesman. Indeed, he was one of the innovators of the concept of the railroad as a part of industry which, by scientifically rendered, reliable service, could save the country billions of dollars in reduced inventories and price and style losses. He sold shippers on this "service-partnership" angle. Mr. Denney took that concept with him to the Erie and, later to the N. P. He applied the formula tirelessly in personal contact with shippers all over the country. Among the customers he became one of the best-known and best-liked railroad presidents, with a reputation for "getting about." In this department of running a railroad the retiring N. P. president allows himself to indulge in one tiny bit of moralizing, to wit: "A railroad president is a damn fool if he doesn't get out and sell what he's making; the product's no good on the shelves." It would not be illogical to expect that the range of his "consulting" duties may include getting about among the trade, spreading the "old-time religion."



North Western locomotive 3004 which has covered over 360,000 miles without shopping with the machinery still in excellent condition and suitable for at least one more year's service

C. & N. W. Steam Power Passes Fourth Year Without Shopping

The Chicago & North Western locomotive 3004, the first of the Class H heavy 4-8-4's to be modernized completely and laid out with a transit,* has recently undergone its fourth annual inspection after accumulating over 360,000 miles, mostly in freight service. During this entire period the locomotive has neither received nor required any classified repairs. The machinery is still in excellent condition and suitable for at least one more year of service. Some of the outstanding endurance records of this locomotive and others of its class, no small part of which is due to the precision layout made possible by the transit, are given below.

* For a complete description of the transit method procedures and results see *Railway Age* of November 12, 1949, page 38.

The life on the first set of tires was 180,122 miles, of the second set, 150,228 miles. The third set was put on January 20, 1950, and has over 40,000 miles. The tires are still a full 4 in. with no flanging and only 1/16 in. of tread wear. Mileage between Lidgerwooding has been as high as 115,348. Some of the other H-1's have gone as high as 225,000 miles on a set of tires.

Cylinders and Guides

The cylinders on the 3004 and all other H-1's still use 27-in. packing; no cylinder boring has been necessary on any of the 23 H-1's. Most H-1's still use the original 14-in. size valve packing. The 3004 has just recently had 14 $\frac{1}{8}$ -in. packing applied. As the maximum size permitted is 14 $\frac{3}{8}$ in., no valve bushing difficulties are anticipated.

Both the valve guides and the main guides are still in good condition. The valve guides still have a 1/16-in. shim. The main guides are in excellent condition and are expected to last for many years. The crossheads are re-babbitted annually as a matter of course.

All original shoes and wedges are in use on all H-1's.



The accuracy of the transit layout can be judged from this use of a micrometer in measuring the required shoe thickness. Such accurate alignment is an important factor in the remarkable performance of the dual-purpose H-1's

and the same is true of the floating plates on the No. 1 and No. 4 drivers. The 3004 and one or two of the other highest-mileage H-1's have had $\frac{1}{8}$ -in. oversize floating plates applied to the No. 2 and No. 3 drivers. Three new crank pins have been applied to the 3004, both No. 1's and one No. 4. The main, the No. 3's, and the one No. 4 were originally applied in 1946 and are still in satisfactory condition. Most H-1's still have all original crank pins.

A crank pin witness groove is cut in the wheel hub about $1\frac{1}{2}$ in. out from the surface of the crank pin. This witness groove was cut by the quartering machine in the back shop when wheels were turned and pins quartered at the time the locomotive was modernized. The witness groove locates accurate quarter on each wheel and is used in setting the portable crank-pin grinders and turning machines when truing the pins is required by engine-house forces.

One steel rod bushing, the right No. 4, is the only recorded replacement in four years of service. Bronze bushings are replaced as wear develops but do not generally need attention between annual inspections. The motion work is in excellent condition, with no appreciable wear, no pitting or grooving.

The silico-manganese coil springs used at the front of

the front drivers and at the rear of the rear trailer wheels are still in good condition and none have required renewal. Lateral difficulties are virtually nonexistent. The H-1's are given $\frac{1}{2}$ in. of free lateral on the front drivers. The 3004 with over 360,000 miles has only $\frac{5}{8}$ in. of lateral. The only maintenance required has been to renew hub liners.

One of the outstanding characteristics of the H-1 locomotives has been the almost complete absence of flanging. This is attributable to two principal factors. One is the precision alignment attained with the transit layout and the second is a procedure followed at each annual inspection. The latter consists of dropping and dismantling the engine truck to inspect and repair the rockers and rocker seats.

The only machinery repair of any consequence made to the 3004 has been the application of the oversize floating plates at the No. 2 and No. 3 drivers. The only time any wheels were dropped on any H-1 was to renew hub liners; tires are shrunk on with the wheels in place and are turned by Lidgewooding.

Flue extensions to five years of service have been granted the first two Class H-1 locomotives to complete four years of service. Plans are to request flue extensions for each H-1 as it completes four years of service.

Communication . . .

The Need for Safer Coach Structures

CHICAGO

To THE EDITOR:

The recent collisions on the Long Island call anew for a revision of our conceptions of a safe car structure. There are two main modes of collisions—sideswiping, with occasional buckling of one or both of the colliding vehicles, and climbing, with one of the colliding cars "telescoping" the other. Of the two, the latter is usually the more disastrous. For this reason bufferlike end constructions or derailing means have been suggested to initiate sideswiping before climbing can occur. Their effectiveness is doubtful in view of the tremendous inertia forces, which must be deviated within a split second.

If climbing has once occurred, the large buffing strength of the center sill may do more harm than good. The center sill of the climbing car pierces, daggerlike, into the interior of the other car, while the impact energy is absorbed by crushing, collapsing or shearing of the relatively weak structures of the sides and roof of that car. To depend, therefore, on a rigid centersill, as the conventional Association of American Railroads buffing strength formula would imply, is unrealistic, as the entire car body shares in taking up the impact energy.

From this it follows that the car body should approach a tubular structure of equal buffing strength around its circumference. This would suggest a "monolithic" structure in which the underframe, sides and roof are tied into an integrated unit. It could for example consist of a boxlike structure with four longitudinal corner members, two at the bottom, forming side sills instead of a center sill, and two along the top of the sides, these longitudinal members being connected by cross-ties or carlines, similar to those used in airplanes. Extensive squeeze and collision tests conducted shortly before the war on German passenger cars with side instead of center sills showed that the actual buffing strength of car bodies can be increased substantially

if a part of the buffing forces is transmitted into the sides and roof by diagonal braces, placed in the sides at either end, and by slightly heavier vertical posts between the windows. Careful stress analysis proved that in this manner the buffing strength can be increased without additional weight.

Turning now to the car ends, the question is whether they should not be designed so that under shock loading they will submit to plastic deformation rather than to failure by fracture, shear or crushing. In this manner large parts of the inertia energies can be absorbed before they reach the car body with its human load. It is also well known that elastic elements, if subjected to stresses beyond the elastic limit, and therefore plastically deformed, have greater resistance to failure by fracture, shear or crushing than more rigid elements. Similar to the noses of diesel-electric locomotives or to some buses with a latticed framework of tubular members, car ends are conceivable which bulge in under impact loads. From buses of this kind it is known that such designs stand up in collisions particularly well, as the deformation of the network of tubular front members restricts the damage to the vicinity of the point of impact. Latticed front ends with diagonal tubular bracings would lend themselves well to cars with center doors of the type lately introduced on two Chicago suburban lines. It also may be that the latticed ends, if entangled with each other in a collision, may prevent climbing.

Still another possibility is the introduction of buffing structures with shear members containing plug-welded shear bolts, which would tear the surrounding plates over a length of several feet before the bolts fail.

No matter what the merits of these or similar suggestions may be, there can be no doubt that a profound revision of our present car designs can be allowed no further postponement. There is, however, one prerequisite: a thorough mathematical approach, supplemented by scientific squeeze tests and by collision tests, not in the laboratory, but on the road and extended, as in the German tests mentioned, to high speeds and to the eventual total destruction of the tested cars. The costs stand in no proportion to the savings of human life.

FORMER RAILROAD
MECHANICAL ENGINEER

The "BLUE BIRD" Brings Happiness to the Wabash

Introduction of this new St. Louis-Chicago streamliner has resulted in improved net earnings

The "Blue Bird" is earning money. In fact, if present trends continue, this new train will have completely paid for itself in less than five years. And no one is happier about this fact than the Wabash and the men who worked to bring this new train into being.

The St. Louis-Chicago market is highly competitive, with three different railroads seeking the passenger's patronage—the Gulf, Mobile & Ohio, the Illinois Central and the Wabash. Of these, the Alton route of the G. M. & O. has handled the largest share of the passenger traffic

for nearly a century and offers a greater variety of schedules for the passenger's choice. The I. C. has the handicap of the longest mileage of the three routes but operates three trains a day, the same as the Wabash. The Wabash has a short, high-speed route, but it passes through only one intermediate city of importance, namely, Decatur. In contrast, the G. M. & O. has Alton, Springfield, Bloomington and Joliet. As a result, the G. M. & O. is in a position to obtain a greater volume of intermediate sustaining traffic than can either the I. C. or the Wabash. This means that the Wabash—like the I. C.—must rely to a greater extent on its through St. Louis-Chicago travel for support of its trains.

Delmar Station

The Wabash has one very important and influential advantage in its Delmar Station on the west side of St. Louis. This station is very close to University City and other suburbs just west of and adjacent to St. Louis. Its location is quickly and easily accessible by automobile and bus from all of the western suburbs where many St. Louis business and industrial leaders live. It is also close to St. Louis University, Washington University and other educational institutions in and around University City. By using Delmar Station, which is so near and convenient to their homes, St. Louis business men can save themselves a trip to and from the Union Station downtown.

Both the I. C. and the G. M. & O. have a morning departure from St. Louis, making it possible for a traveler to get into Chicago in time to conduct business the same day or to make connections east, west or north. Prior to the inauguration of the new "Blue Bird" service, the first train of the Wabash left St. Louis at noon. This left the Wabash without northbound service from St. Louis in the morning, a period of maximum demand.

During the 1930's the I. C. introduced the streamlined "Green Diamond" in the St. Louis-Chicago service and shortly thereafter the then Alton streamlined the "Abraham Lincoln" and "Ann Rutledge." Following the war, both lines introduced a number of streamlined coaches and parlor cars, so that all of their day trains were streamlined. The Wabash tried to meet this competition with fast schedules and comfortably modernized (but not streamlined) equipment, but, even so, found itself in a difficult competitive position.

To compete with the streamliner services then being operated by the other railroads, the Wabash management had to decide whether to attempt to capture business by makeshift measures, or to make a carefully planned effort to put its day service "in the middle of the running." The decision, and the resulting construction of the new streamlined "Blue Bird," was a well-kept secret which didn't come out until the train was about to be inaugurated.



The size of the circle representing each point on this map indicates its relative size and importance as a travel market. It is clear that little intermediate traffic is available to the Wabash, compared with other routes. The inset shows the location of Delmar Station in St. Louis with relation to Union Station and the western suburbs



The "Blue Bird" serves Delmar Station in St. Louis where, usually, more passengers detrain southbound than at the Union Station

With the introduction of the new domed train on February 26, 1950 (described in *Railway Age* of April 1), the Wabash again became a serious contender for St. Louis-Chicago travel. The schedule was arranged to provide a morning departure from St. Louis and the Wabash became the only railroad to offer observation dome cars between St. Louis and Chicago.

President Arthur K. Atkinson, in commenting on the new train, said: "When other railroads serving the territory assigned streamline equipment and diesel power to their day trains operating in this service, we felt it necessary to meet our competition with comparable or even superior equipment and service. The result was the construction of the beautiful new 'Blue Bird' train with its domed coaches and parlor car, its wired music, radio, cocktail bar, coach lounge, and all other modern facilities for the comfort and convenience of the traveling public.

"The results of its operation have—from the very beginning—justified the wisdom of the management's decision to build the new train for this service."

There are several reasons why the "Blue Bird" has proved to be profitable to the Wabash. For one, with the inauguration of this new streamliner (which is a single train making one round-trip a day from St. Louis to Chicago and return—589 miles) it was possible to release the two sets of equipment formerly required to operate the late afternoon "Blue Birds." The increased equipment mileage resulted in lower maintenance and repair costs per train-mile, and the substitution of diesel for steam power produced a 51 per cent saving in fuel cost and a 47 per cent reduction in locomotive repair cost per mile. Furthermore, the new equipment and schedule have attracted new passengers and revenue. In brief, the new train reduced costs and improved revenues.

At the time the new "Blue Bird" went into service the equipment on its companion day train, the "Banner Blue," was improved by reassignment of cars and the addition of diesel power. This train is not a streamliner, but features comfortable air-conditioned equipment. Its schedule, always fast, has remained substantially unchanged.

Recently the Wabash inaugurated two new bedroom-roomette cars on each of its Chicago-St. Louis midnight operations. Northbound, one of these bedroom-roomette cars is open at Delmar Station and one at Union Station at 9:30 p.m. for the accommodation of patrons. This improvement in service has produced an increase in sleeping car travel.

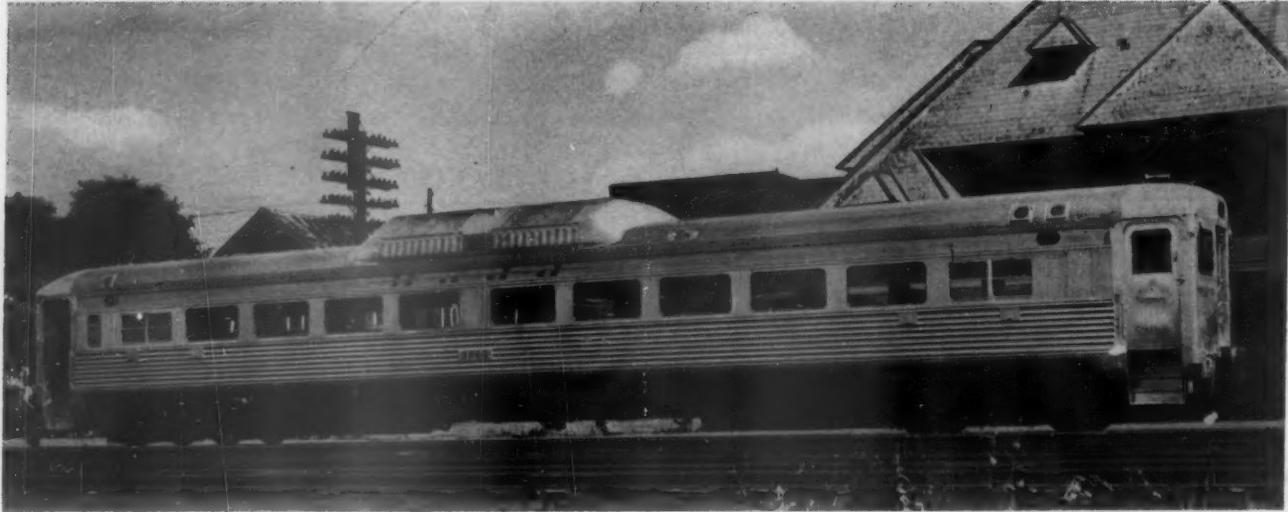
Travel to and from Decatur, the Wabash's only intermediate large city, has been little affected by these improvements in the St. Louis-Chicago service. However, the Decatur-Chicago sleeping car handled on the night trains has recently been restored for an experimental period.

Produces New Traffic

The advent of the new streamliner has resulted in a redistribution of passengers on Wabash trains. It has drawn some patronage from the "Banner Blue" and possibly also from the "Midnight Special." However, any passengers transferred from the night trains have been replaced by new passengers attracted by the new bedroom-roomette sleepers.

All three trains combined are carrying more passengers and earning more revenue—proof that the new service has produced new travel.

In 1949 all of the Wabash's six St. Louis-Chicago trains combined reported an average gross revenue, from passengers alone, of \$1.85 per mile. In the past six months, since the advent of the new "Blue Bird" and the bedroom-roomette sleepers, the average earnings per train-mile from passengers on the six trains combined reached \$2.17. This 17 per cent increase in gross revenues from passengers occurred at a time when passenger revenues in the Midwest generally were declining. It highlights the fact that, although there has been a redistribution of traffic among the individual trains, the combined result has been an improvement running contrary to general trends. Undeniably, most of this improvement can be directly credited to the new "Blue Bird."



The Place of Multiple Unit Diesel Cars

Premises of Budd RDC car design—Performance for which cars are built and service economics — How they have been received

In the RDC cars the Budd Company has offered the railroads a passenger transportation medium based on a conception somewhat at variance with generally accepted ideas. The cars, highly powered, are intended for operation in trains subject to multiple-unit control comparable with that available on electrified lines but with each car carrying its own source of power. The article which follows is extracted from a paper by Benjamin Labaree of the Budd Company which was presented before the Society of Automotive Engineers, National Diesel Engine meeting, Hotel Knickerbocker, Chicago, November 2 and 3.

There is a current railroad need for a self-propelled car capable of single or multicar operation with a performance suitable for improving schedules and frequency of service at a minimum capital and operating cost.

The Budd Company from 1932 to 1948 had designed and built a number of light-weight stainless-steel, diesel-electric motor trains and self-powered cars in addition to many hundred stainless-steel main-line passenger cars.

In the summer of 1948 the company decided the time was ripe to reopen investigations of the latest possibilities of such cars in view of Budd's accumulated know-how on lightweight cars, trucks and brakes and of General

Motors on diesel engines and transmissions. The Budd Company had also built up railroad research laboratory facilities to permit thorough proving of every phase of such a new product to insure success before offering it to the railroads.

Design Premises

Several design premises were set up at the outset:

1. Power unit and equipment must not encroach on revenue space above the floor of the car, so that cars could return maximum earnings to the railroad.

2. Therefore, the power unit must fit under the car floor, be accessible for maintenance and at the same time completely replaceable in less than two hours. This is to keep maintenance costs to a minimum and availability to a maximum. Also, to avoid encroachment on passenger space, it was necessary that the engine cooling radiators be mounted in a dome section on the roof.

3. Engine horsepower and gear ratio were to be such that speeds up to 85 m.p.h. could be reached. It was considered for a very large majority of runs for which RDC might be used that speeds above 85 m.p.h. would not be required.

4. The horsepower-weight ratio and tractive force were to be such that accelerations should be equal to or better than any all-electric multiple-unit railway cars in service—that is, better than 1.1 m.p.h. per sec. This would also permit cruising at reduced power, which contributes to long engine life.

5. The selection of the type of power transmission

was narrowed down at an early stage to a torque-converter drive with reverse gear. Electric traction-motor drive was ruled out because of much higher cost, greater weight and difficulty of locating two diesel engines and two large traction-motor generators under the car floor along with other necessary equipment. A straight mechanical transmission was ruled out because of its cost and complication with at least three speeds both forward and reverse, because of inability to produce a sufficiently smooth acceleration, and because of expected high maintenance.

6. The power from the output shaft of the power unit was to be applied to the axle through universal joints and a drive shaft to a gear box on the axle. The drive shaft design must accommodate truck swing on 23-deg. curves (250-ft. radius) as well as car-body spring deflections and engine deflections in the flexible engine mounts.

7. The selection of diesel power was self-evident from the beginning—high efficiency, low cost, less hazardous fuel and general all around ruggedness together with practical horsepower-weight ratios.

8. The controls must be set up so that the RDC could operate singly or in any number of reasonable multiples in either direction from the lead motorman's station.

9. The car must be easy to maintain inside and out and must have an attractive exterior and interior.

10. Enough different standard floor plans must be made available to most generally satisfy varied railroad needs without unduly increasing the cost of the product.

11. The car must be producible at a minimum cost consistent with good quality in order to gain the widest possible acceptance.

About 500 hp. per car was required to give proper acceleration and to propel the car at 85 m.p.h. against train resistance of a single car. The employment of two 275-hp. engines under the car is advantageous in several important ways: (1) It gives greater operating reliability in case of malfunctioning of one power unit and avoids possibility of a railroad tie-up by permitting operation to completion of run at a reasonable speed. (2) It makes possible a simple final drive from the power unit to the adjacent truck axle—two axles per car. (3) The two 275-hp. power units are each light enough to permit easy handling so that complete engine changes can be made in less than two hours using stock spare engines. This makes possible complete avoidance of moving the whole car to the back shop for engine overhauls and also eliminates any need of working over a pit to service engines. (4) Due to greater industrial demand for 275-hp. engines than for larger units, it is possible to benefit by automotive production methods on larger quantity production of a basic engine.

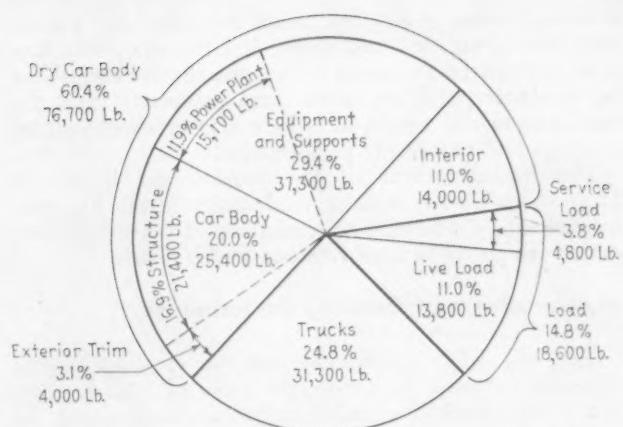
Standard Floor Plans

The RDC-1, RDC-2, and RDC-3 all are standard AAR 85-ft. coupled-length cars* with identical main underfloor equipment layouts and with vestibules at both ends with fixed entrance steps. They differ only in floor plan. Even here the hand-brake end of these cars from the pipe duct in the middle of the car to the end is identical on all three cars.

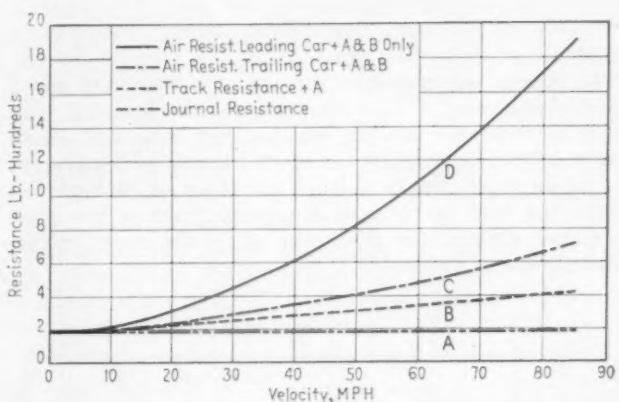
The RDC-1 coach carries 90 passengers in walkover seats located on 36-in. centers. One men's and one women's toilet are provided. The RDC-2 baggage-coach carries 71 passengers with one general toilet and a separate 17-ft. baggage section at one end.

The RDC-3 R.P.O. mail-baggage-coach carries 49 pas-

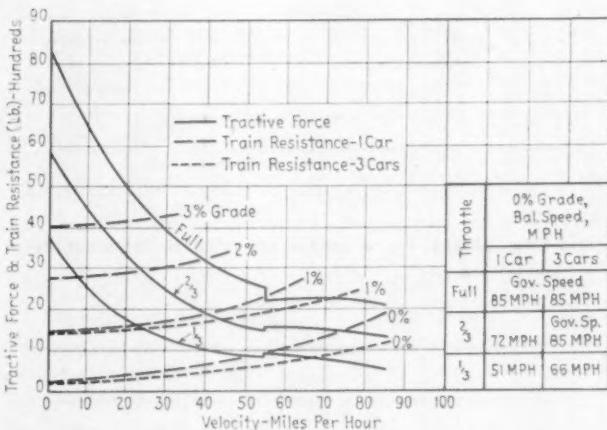
*For a general description of these cars see "Budd Diesel Rail Car Has Seats for 90," in *Railway Age*, September 17, 1949, page 496.



Analysis of the weight of an RDC-1. Total weight 126,600 lb. with normal maximum load



Train resistance of single RDC and trailing cars in multiple unit operation



Traction force and train resistance per car for single cars and three-car trains

Two 275-hp. engines per car; 2.08 gear ratio; 30 hp. per car for auxiliaries

sengers with one general toilet, with 15-ft. R.P.O. section and 17-ft. baggage section at the other end.

The RDC-4 R.P.O. mail-baggage car carries no passengers, is built to a 73-ft.-10-in. coupled length to accommodate a 30-ft. R.P.O. and a 31-ft. baggage section. The

same equipment is supplied as on the other cars except that there is no air conditioning and the equipment has to be rearranged somewhat to suit the shorter car. This car is shorter than the other three models to limit the maximum loaded weight in order not to overload journal bearings and reduce car performance.

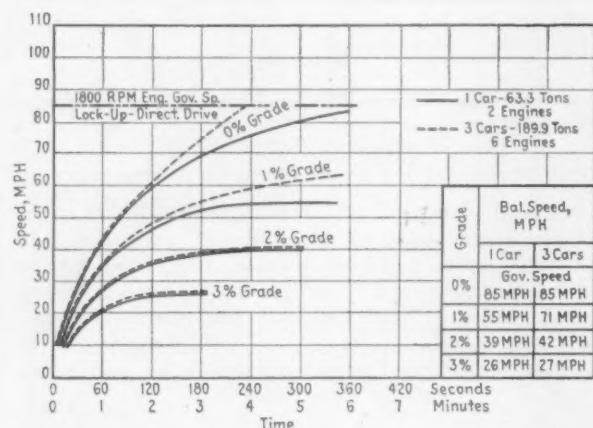
The loaded weight of the 90-passenger RDC-1 is 126,600 lb. This is a substantial factor in the fine performance of the RDC. A breakdown of the weight into major categories is shown in one of the charts.

Acceleration and Running Performance

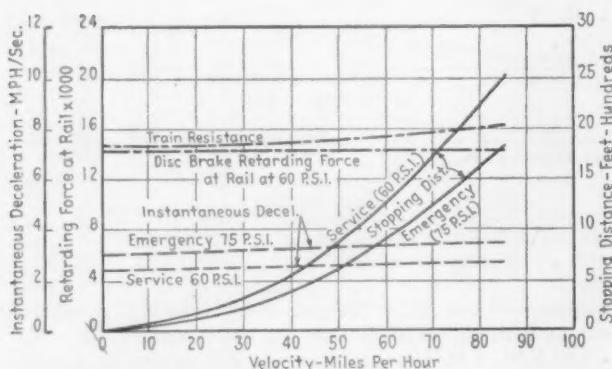
The low RDC car weight and the excellent overall engine-horsepower to car-weight ratio of 8.68 h.p. per ton make possible a rapid initial acceleration of 1.4 m.p.h. per second and easy high-speed operation.

To calculate running performance, it is first necessary to determine train resistance at any speed. This is done by means of the well-recognized Davis formula adapted to the RDC on the basis of drift-test measurements from 85 m.p.h. taken on the demonstrator car. This formula is made up of three components: journal resistance, a constant at all speeds; track resistance, varying directly with speed; air resistance varying with square of speed and also having a different value for the lead car with frontal resistance and the trailing cars with skin resistance only. These figures are plotted in one of the graphs.

At 85 m.p.h. the total train resistance of each car behind the lead car of a multiple-unit train is less than one-half that of the lead car, while the same engine horsepower is available.



Speed-time curves for a single car and a three-car train



Disc brake performance data

Another graph shows the basic tractive force curves. Intersection of train-resistance with tractive force curves for various throttle settings establish the calculated balance speeds for each combination. One- and three-car train operation is shown to illustrate the improved performance with multiple units. A three-car train on level track can run in direct drive at 65 m.p.h. with one-third throttle. On a one per cent grade the same train can run in direct drive at 70 m.p.h. with full throttle. A single car can run home on one engine at 62 m.p.h. in direct drive on level track at full throttle or at 50 m.p.h. in torque-converter drive at two-thirds throttle.

The rate at which single or multiple units can accelerate makes the RDC attractive for service involving frequent stops. On this type of run, if the stations are less than a mile apart, the cars may never reach direct drive lockup speed of 55 m.p.h., but aside from greater fuel consumption than on runs that permit cruising at higher speeds at reduced throttle in direct drive, the RDC is well able to take this operation in its stride. Speed-time curves are shown which indicate the performance of one- and three-car units on various grades.

Braking Performance

The Budd disc brake will produce actual retardations of 3.5 miles per hour per second in emergency and 2.8 miles per hour per second in service braking. A fully loaded RDC has been stopped in 2,330 ft. from 85 m.p.h. using service braking only. In emergency a loaded RDC can be stopped from 85 m.p.h. in 1,900 ft.

A graph shows brake retarding forces, stopping distances and instantaneous decelerations for an RDC in both service and emergency braking.

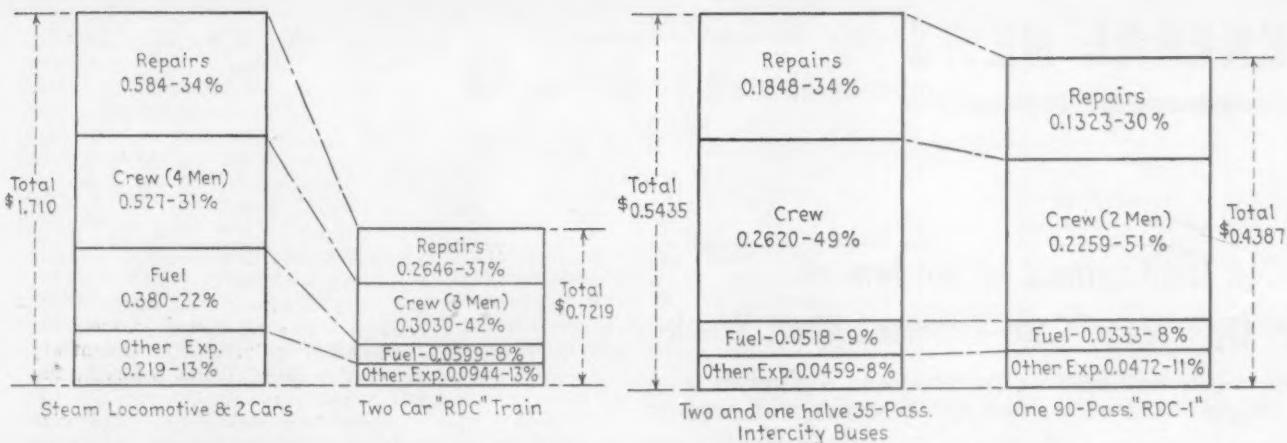
RDC Economies

In 1949, the Berge and Loftus paper "Diesel Motor Trains" published by the Northwestern University School of Commerce clearly brought out the effectiveness of diesel motor trains in solving some of the economics of railroad passenger transportation. Also, in 1949, the Budd Company sponsored a special study on the projected operating costs of the RDC by Coverdale & Colpitts, consulting engineers in New York. The studies are factually based on railroad statistics. This report demonstrates that the projected RDC operating costs per car mile are attractively low in comparison to any other rail vehicle of comparable performance and flexibility. It will also be noted that on the basis of the same passenger capacity, the RDC is cheaper to operate than buses. These cost comparisons are shown in two charts.

Since crew expenses are such a large item in operating costs, it is important for maximum economy of operation of RDC and similar self-propelled cars that minimum crews be contracted for. A three-man crew instead of a two-man crew on a single RDC can increase the operating cost per car mile by almost 20 per cent.

The Budd demonstrator car has run more than 68,000 miles with an average consumption of better than $2\frac{1}{2}$ miles to the gallon—about 3 cents a mile for fuel. Runs which require many closely spaced stops will have poorer fuel economy. Also, constant running at full throttle has a detrimental effect on fuel economy, not to mention engine maintenance.

The rapid-engine-change feature will in time result in lower maintenance costs and permit increased percentage utilization of RDC's. Still another item contributing to low maintenance that is not generally known is the disc brake. Considerable annual saving in brake-shoe cost can be achieved per year over clasp brake shoes (100,000



miles per disc shoe instead of 6,000 miles per clasp shoe). Also, wheel troubles such as heat checks of the wheel tread are eliminated.

When the Budd Company decided to go all out in producing RDC cars, it was decided that it would be necessary to reduce the sales price to the lowest possible value so that it would be within the means of small and large purchasers alike. It was clearly realized that it would be impossible to attain this objective by custom building of these cars to every different railroad specification, as is the practice in railroad passenger-car manufacture. Standardization alone would produce the lowest costs. At the same time, the standard RDC to be offered would have to provide for a rather wide variety of operating requirements.

As a result, the Budd Company offered three (and later a fourth) standard RDC cars (differing only in floor plan) to purchasers of any number of cars at a fixed price announced in advance. In addition, the Budd Company took a further radical step in putting into immediate production ten cars of two types before a single order was received. The reasoning back of this step was simple—it was the means of eliminating another disadvantage resulting from the customary method of car-building—long delivery times. By this procedure, the Budd Company can deliver in one half the time that is usual, and in some cases, can offer cars off the shelf for immediate delivery.

Reception and Service Record

The RDC demonstrator car has traveled over 68,000 miles successfully. Immediately after leaving the factory, the car was given extensive road tests for 6,000 miles. It was then tested in the Budd climate laboratory to prove out the car heating system. At this point, the RDC embarked on a most extraordinary and successful country-wide tour. A complicated itinerary of 10,300 miles was prepared in advance for a three months' period. In all that time the RDC met every scheduled demonstration on time. The car was shown to 55 railroads in 30 states.

Many correctible difficulties arose, but the skilled laborers of the demonstration crew prevented delays. At the same time, it is a satisfaction to note that all difficulties were of the sort that could be corrected and improvements made to prevent frequent recurrence. In general, all major design features were very successful—the car body and trucks, the engine and transmission, the heating system and, best of all, the performance.

At the completion of the demonstration run in Oakland, Cal., on December 19, 1949, the demonstrator was made available at no cost to several railroads for trial revenue service. A number of railroads purchased cars immediately after completion of these runs, which generally lasted from one to five weeks.

As of this date, the Budd Company has completed 20 RDC cars since the demonstrator car and has undertaken production on 20 more for completion in first half of 1951. The Western Pacific has bought two RDC-2's, New York Central four RDC-1's, Chicago & North Western one RDC-2 and two RDC-1's, Pennsylvania-Reading Seashore Lines six RDC-1's, Baltimore & Ohio 2 RDC-1's, New York, Susquehanna & Western 4 RDC-1's. Of these 21 cars, 18 are now in service.

The operation of the demonstrator RDC on the road in ambient temperatures over 100 deg. had proved the great reserve capacity of the cooling radiator and fan installation. It remained to be learned in our climate laboratory this summer, however, just how generous the cooling system is. The car was being run jacked up so that the four driving wheels were clear of the rails. The engines were operated against the drag of the disc brakes. Under these circumstances and with a climate room average ambient temperature of 140 deg. F. the engines cooled perfectly; the cooling fans still cycled on and off.

"Now that we are all getting a first-hand acquaintance with inflation, it is becoming plain enough that the taxpayers not only suffer losses as underwriters of projects whose costs are not wholly recovered from project revenues. They are hit in another way, too, when the federal government borrows money for public works or any other purpose. That is the biggest single factor in the pressure toward shrinkage of the dollar—especially when the borrowing follows the present fashion of calling on the country's banking system. Beyond all that, the ownership of a public utility system by a government or by a governmental agency always enjoys tax exemptions not enjoyed by business enterprises. This in itself places added burdens on the taxpaying public, for the taxes have to be levied on somebody."—From an address by Carroll B. Huntress, chairman of the National St. Lawrence Project Conference.

GENERAL NEWS

Union Ratifications of Settlement In "Op" Wage Case Expected Next Week

Agreement mediated by Dr. Steelman will result in three-year contracts; "non-op" demands still pending

Formal ratification by the "big four" brotherhoods of the White House agreement for settlement of pending wage and rules disputes involving railroad operating employees was expected to be completed by the end of next week. The Brotherhood of Locomotive Engineers and Order of Railroad Conductors were arranging ratification proceedings this week while the Brotherhood of Locomotive Firemen & Enginemen and Brotherhood of Railroad Trainmen were scheduled to hold meetings of their general chairmen for that purpose at Cleveland, Ohio, on January 4.

As reported briefly in *Railway Age* of December 23, page 30, the settlement was announced by Dr. John R. Steelman, assistant to President Truman, on the afternoon of December 21—after he had held representatives of the unions and management in an all-night conference at the White House.

The settlement provides for a wage increase of 23 cents per hour for yardmen and five cents per hour for roadmen, retroactive to October 1. It further provides for an additional two cents per hour for yardmen and an additional five cents per hour for roadmen, effective January 1, 1951. As to the 40-hr. week, it was adopted in principle but its installation was deferred until January 1, 1952, after which the matter will be determined on the basis of the manpower situation. The yardmen are to get an additional raise of four cents per hour—"if and when the 40-hr. week actually becomes effective."

Cost-of-Living Changes

The settlement will be embodied in three-year contracts which will have provisions for adjustment on the basis of changes in the cost of living. These provisions, which come into play April 1, 1951, call for an increase of one cent an hour for each point of increase in the consumers' price index computed by the Bureau of Labor Statistics of the U. S. Department of Labor. The adjustments will begin with any increase in the index above 176. The November 15 index, which is the latest released by the Labor Department, was 175.6.

The contracts will also call for a few changes in working rules. And there will be arrangements for further wage negotiations on or after July 1, 1952,

if employees in industry generally have obtained so-called "improvement" raises.

All pending disputes involving operating employees are covered by the settlement. The principal controversy was that arising out of demands of the B.R.T. and O.R.C. for various changes in working rules applicable to road and yard service and a 40-hr. week, with no loss in take-home pay, for yardmen. It was the B.R.T.-O.R.C. strike threat in this dispute which brought on the present period of government control and Army operation of the railroads.

Strike Averted

The strike, which was set for 6 a.m. August 28, was averted when President Truman seized the roads as of 4 p.m. August 27. The strike call was issued after the B.R.T. and O.R.C. rejected the recommendations of an emergency board which passed on their case. (See *Railway Age* of June 24, page 84.) The two unions also rejected a previous Steelman proposal which settled like disputes involving railroad

employees who are members of the Switchmen's Union of North America and the Railroad Yardmasters of America. The additional concessions embodied in the present settlement are expected to be offered to S.U.N.A. and R.Y.A. members.

While these 40-hr.-week cases were running their courses, the operating unions launched additional wage proceedings. They included demands of the B.R.T., O.R.C. and B.L.F.&E. for increases of 35 cents per hour, and the latter's 40-hr. case; and B.L.E. demands for 20 per cent increases for its members in yard and road service. All these cases will be settled as a result of last week's White House agreement.

Meanwhile, there remain unsettled the cases involving demands of unions representing non-operating employees for an increase of 25 cents per hour. In these cases the railroads have now agreed to handling by regional conference committees, and the first joint conferences on that basis are scheduled to be held January 9 in Washington, D. C.

The "memorandum of agreement" which set out the settlement of the "op" cases was signed on behalf of the brotherhoods by their chief executives—Grand Chief Engineer J. P. Shields of the B.L.E., President D. B. Robertson of the B.L.F.&E., President R. O. Hughes of the O.R.C., and President W. P. Kennedy of the B.R.T. On behalf of management, the agreement was signed by chairmen of the three regional conference committees—L. W. Horning for the eastern roads, D. P. Loomis for the western roads, and C. D. Mackay for the southeastern roads.

Details of Agreement

The agreement deals first with the 40-hr. week and the wage increase for yardmen, as noted above. There is also a provision stipulating that yardmen required to work a seven-day week shall be paid overtime rates for the seventh day—except in the case of engineers, who shall receive straight-time rates for the seventh day. "This does not create guarantees where they do not now exist," the agreement adds.

It goes on to provide for giving the involved yard employees daily earnings minimum and differentials for car retarder operators and footboard yardmasters as recommended by the emergency board. It further follows the emergency board report in providing for the writing of rules to settle such matters as initial terminal delay, interdivisional runs, pooling of cabooses, reporting for duty, performance of more than one class of service, establishment of switching limits, coupling



MARKING THE 10TH ANNIVERSARY OF THE "DIXIE FLAGLER," President C. M. Roddewig of the Chicago & Eastern Illinois pins a Florida-grown orchid corsage on Mrs. William Lundigan as her film star husband looks on approvingly. The birthday celebration took place in Chicago's Dearborn station, from which the "Dixie Flagler" now departs for Florida points on a two-out-of-three days basis with both coach and Pullman accommodations

and uncoupling of air hose, the so-called western differential, and double-header and tonnage limitations.

As to dining car stewards, the agreement calls for reduction of their basic hours from 225 to 205 per month, but no penalty overtime is to accrue until 240 hours have been worked, the hours between 205 and 240 to be paid for at pro rata rate. This arrangement will be retroactive to October 1.

Effective February 1, 1951, the stewards will be paid overtime at time and one-half after 220 hours have been worked; and the basic monthly salary for their 205-hour month will be the same as that paid for the 225-hour month. Meanwhile the present monthly rate will have been increased by \$4.10, effective January 1, 1951.

Three-Year Contracts

The term of the new contracts will expire October 1, 1953, and thereafter changes will be "under provisions of the Railway Labor Act." This three-year moratorium plan, with its provisions for "improvement" increases was set out in the agreement as follows:

"No proposals for changes in rates of pay, rules or working conditions will be initiated or progressed by the employees against any carrier or by any carrier against its employees, parties hereto, within a period of three years from October 1, 1950, except such proposals for changes in rules or working conditions which may have been initiated prior to June 1, 1950. Provided, however, that if as the result of government wage stabilization policy, workers generally have been permitted to receive so-called annual improvement increases, the parties may meet with Dr. Steelman on or after July 1, 1952, to discuss whether or not further wage adjustments for employees covered by this agreement are justified, in addition to increases received from the cost of living formula.

"At the request of either party for such a meeting, Dr. Steelman shall fix the time and place for such meeting. Dr. Steelman and the parties may secure information from wage stabilization authorities or other government agencies. If the parties are unable to agree at such conferences whether or not further wage adjustments are justified they shall ask the President of the United States to appoint a referee who shall sit with them and consider all pertinent information, and decide promptly whether further wage increases are justified and, if so, what such increases should be, and the effective date thereof. The carrier representatives shall have one vote, the employee representatives shall have one vote, and the referee shall have one vote."

If the parties fail to agree on details of contracts embodying the present settlement, the matters in disagreement are to be submitted to Dr. Steelman for "final decision." The settlement is not to prevent managements and employees of individual roads from "mutually agreeing upon changes in rates, rules and working conditions of employees covered by this agreement." Also, the contracts will include "the usual protections for arbitraries, miscellaneous rates, special allowances, and existing money differentials above existing standard daily rates."

Billion-Dollar-A-Year Improvement Program Will Continue Through 1951

By WILLIAM T. FARICY

President, Association of American Railroads

To meet the rising requirements of national rearmament, the railroads will continue in 1951 the billion-dollar-a-year program of expansion and improvement which has marked the last five years.

They enter the new year with orders for 125,000 new freight cars, to be added to the 42,000 put in service in 1950 and the total of 345,000 new cars since the end of World War II.

The railroads have on order more than 2,000 units of new motive power, to be added to the approximately 3,000 installed in 1950, and the total of 11,000 new units since the end of World War II.

With more and larger cars and with locomotives which total 7 per cent more in pulling power and average almost 25 per cent higher in tractive effort, railroads have greater carrying capacity than they had at the time of Pearl Harbor. With the improvements in tracks, signals, yards, shops and

every other part of the plant, the average freight train in 1950 turned out transportation service each hour equivalent to moving a ton of freight 20,000 miles—an hourly output nearly 15 per cent above the peak movement of the second World War and almost three times as much as in the first World War.

In times of emergency, railroad capacity is capable of a high degree of expansion. Between Pearl Harbor and the World War II traffic peak three years later, freight movement on the railroads went up more than 50 per cent. With access to the manpower and materials needed to continue the program of enlargement and improvement on which the railroads have spent more than five billion dollars in the past five years, and with the continued cooperation of shippers and government agencies, the railroads once again can increase their transportation output in step with increasing defense demands.

1st Quarter Loadings Seen up 16.5 Per Cent

Shipper boards predict rise in 27 of 32 commodity groups

Freight car loadings in the first quarter of 1951 are expected to be 16.5 per cent above those in the same period of 1950, according to estimates of the 13 regional Shippers Advisory Boards.

On the basis of these estimates, loadings of the 32 principal commodity groups will be 6,926,919 cars in the first quarter of 1951, compared with 5,947,451 actual loadings for the same commodities in the corresponding period of 1950.

All the advisory boards estimate an increase for the first quarter of 1951 compared with the same period of 1950. An accompanying tabulation shows actual loadings for each district in the first quarter of 1950, estimated loadings for the first quarter of 1951, and the percentage of increase.

Board	Actual Loadings	Estim. Loadings	Per Cent Increase
	First Quarter	First Quarter	Increase
New England	127,800	138,371	8.3
Atlantic States	674,720	777,208	15.2
Allegheny	725,489	988,639	36.3
Ohio Valley	750,705	942,699	25.6
Southeast	849,894	931,580	9.6
Great Lakes	398,106	449,826	13.0
Central Western	219,727	269,337	22.6
Mid-West	712,131	835,912	17.4
Northwest	201,100	241,180	19.9
Trans-Missouri-Kansas	323,684	339,141	4.8
Southwest	481,749	484,777	0.6
Pacific Coast	300,078	319,436	6.5
Pacific Northwest	182,268	208,813	14.6
Total	5,947,451	6,926,919	16.5

The boards expect an increase in

the loading of 27 of the commodity groups and a decrease in five. Among those showing the greatest increase are: coal and coke, 37.9 per cent; ore and concentrates, 32.4 per cent; citrus fruits, 28.1 per cent; automobiles and trucks, 22.5 per cent; brick and clay products, 18.5 per cent; machinery and boilers, 15.2 per cent; chemicals and explosives, 11.7 per cent; fresh fruits other than citrus fruits, 11.3 per cent; and iron and steel, 10.9 per cent.

Commodities for which decreases are estimated include cottonseed, soybean-vegetable cake and meal, except oil, 19.9 per cent; cotton, 10.7 per cent; fresh vegetables other than potatoes, 3.2 per cent; livestock, 1.4 per cent; and vehicle parts, 1.3 per cent.

Gass Anticipates Loadings Will Stay at High Level

The step-up in defense activities in the weeks ahead "will most assuredly result in continuing heavy carloadings," Arthur H. Gass, chairman of the Car Service Division, Association of American Railroads, said in his most recent issue of the "National Transportation Situation."

Discussing the car situation as of mid-December, Mr. Gass said box car shortages "are again on the increase" while unusually heavy requirements for open top cars are causing substantial shortages of all types of gondolas and hoppers.

"Box car surpluses a year ago were 6,866 while this year they were practically non-existent," Mr. Gass said. He

**Here's
a look
inside
the HOUDAILLE***

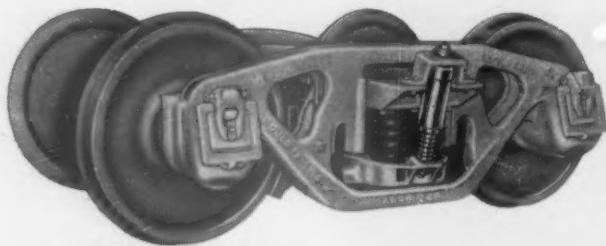
**Friction
Snubber**

Here is the inside mechanism of the Houdaille Friction Snubber. It is simple and fool-proof with an assured long life because of its carefully engineered design and precision construction. It is self-compensating for wear and entails no service or maintenance which cannot be done by present railroad personnel without special training.

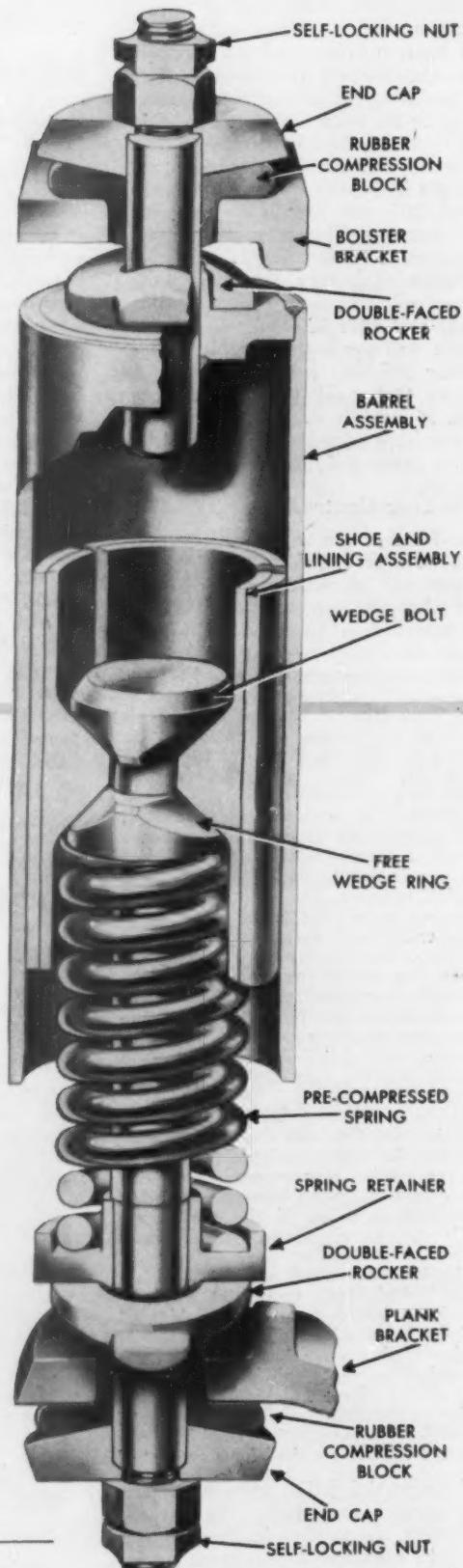
Its effectiveness has been conclusively proven in long

and intensive service tests, and it is now standard equipment on the Chrysler-Design Trucks for the new General American-Evans Damage Free Box Cars.

This simplified but effective railroad shock absorber is ideal for high speed freight service and for most modern passenger car suspensions. It is adaptable for both vertical and lateral control.



The Houdaille Friction Snubber as applied to the Chrysler-Design Trucks for the new GAEX Damage Free Box Cars.



HOUDAILLE - HERSHHEY CORPORATION
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**Say "Hoo-dye"*

noted also that shortages on Canadian lines have become more acute; and he called attention to recent I.C.C. service orders designed to reduce or prevent delay to cars used for handling traffic at coastal points.

The heavy demand for gondolas and hoppers has resulted from additional emphasis being placed on the defense program, Mr. Gass reported. He said the large-volume movement of coal, coke and limestone, which is "likely" to continue well into the future, has created shortages of hoppers. Meanwhile, very heavy steel production and an unprecedented movement of pig iron through the eastern ports has taken a heavy toll on the gondola supply.

Mr. Gass discussed 1950 coal loadings, which he said are expected to approximate 7,200,000 cars. By December 9, revenue coal loadings were 15.8 per cent over the same period of 1949. The year's bituminous production is expected slightly to exceed 500 million tons, as compared with 435 million tons last year.

As to the lake programs, the C.S.D. chairman said lake coal dumpings at Lake Erie ports exceeded the 50 million ton objective on November 27. Iron ore movements from the head-of-the-lakes totaled 78,205,681 tons at the close of the season December 11. Mr. Gass said this represented about 98 per cent completion of the ore program, a good record since the lake shipping season opened a month late this year because of weather.

Discusses Equipment

Turning to a discussion of equipment, Mr. Gass said December 1 statistics for Class I roads and their subsidiary refrigerator car lines carried "several significant indications of further improvement" in the equipment situation. He called the box car picture "particularly encouraging" and pointed out the fact that there was a gain of 10,000 in the number of serviceable box cars in the past three months. This gain reflects an increase of 4,000 in ownership and a decrease of 6,000 in the number of cars awaiting repairs.

For all types of freight cars, serviceable ownership December 1 was up 3,100 over November 1 and was only 9,000 cars less than on December 1, 1949, when total ownership was 48,000 cars greater, Mr. Gass said. During November there was a further decrease in total ownership, but it amounted to only 578 cars, the smallest for any of the 17 consecutive months during which ownership has been declining.

Serviceable ownership as of December 1 amounted to 1,700,962 cars. There were 97,571 cars being held for repairs on December 1. New cars on order as of that date totaled 115,847, while the number of new cars installed in November was 5,072.

Average turn-around time of freight cars in November, as reported by Mr. Gass, was 14.59 days. The comparable figure for November, 1949, was 17.6 days. On the basis of reports from 726 cities in all 13 shipper board districts,

Shore Line

HOW PERFECT CAN YOU BE?

We don't pretend to be 100% perfect, but faults are faults, and our performance follows. Boston and New York during the past 11 months is the most busy time... (100%) perfect!

Your New Haven Railroad carries out this important operating record in spite of big cuts, heavy traffic, and the lack of an additional stamp for additional help for men and men.

We had a record of 11,000 New Haven cars available for service during the past 11 months and these were concentrated during the winter months. We are now back to normal, better fit their requirements, or schedules, and normal at their discriminations.

We're right proud of this record. It speaks volumes for the dependability of service and the quality of work done. And we're sure you'll agree that service is measured by one other means of measurement—time.

In these days of increasing weather and snow, we're sure you'll appreciate the fact that the one car delayed on New Haven is a great loss and back throughout the country.

your
NEW HAVEN
railroad

RESUMING INSTITUTIONAL ADVERTISING after a lapse of several months, the New York, New Haven & Hartford has recently inserted this 15-inch by 5-col. ad in a number of leading southern New England newspapers

cars detained beyond free time of 48 hours averaged 14.71 per cent of those placed in November. This was the lowest figure since November, 1947, when the figure was 14.6 per cent. The, November, 1950, figure compared with 16.79 per cent in October, and 21.59 per cent in November, 1949.

Tank Car Construction Program Called Inadequate

The number of tank cars provided for in the 10,000-a-month freight car program has been labeled "inadequate" by Bruce K. Brown, deputy administrator of the Petroleum Administration. This comment by Mr. Brown was made at a press conference on December 22, when he declared that a shortage of pressure tank cars for transporting liquefied petroleum gases is presently causing a shortage of such gases in several areas of the country.

Mr. Brown noted that the National Production Authority has allocated steel for the building of 10,000 freight cars a month for the first quarter of 1951. He did not say how many new tank cars are provided for under this construction program.

D. T. A. to Be Kept on Sensible Plane, Knudson

The Defense Transport Administration will endeavor to conduct its operations in the simplest and most direct fashion possible, Administrator James K. Knudson told the Southeast Shippers' Advisory Board at its quarterly meeting at Miami Beach, Fla., on December 13. The meeting was also featured by an address by Alvin W. Vogtle, vice-president of the DeBar-

deleben Coal Corporation, Birmingham, Ala., and a past chairman of the Southeast board and of the National Association of Shippers' Advisory Boards.

Mr. Knudson, who is also a member of the Interstate Commerce Commission, stated that the administration which he heads will use facilities of the I.C.C. to the greatest extent possible in conducting its work, but that there are numerous functions in connection with defense transportation over which the I.C.C. does not have jurisdiction. Introduced to the meeting by Leigh R. Powell, president of the Seaboard Air Line, the administrator minced no words in condemning government control of railroads, as exercised in World War I. "The effect was catastrophic, and I use the word advisedly," he said. "For one thing, it cost the taxpayers over four billion dollars a year to operate the railways under government control, as compared with less than half that amount that would have been required under private management. There was no government operation in World War II, and happily so."

To Eliminate Confusion

Explaining that there are now a number of government agencies dabbling in defense transportation, Mr. Knudson said it was his aim to simplify matters by eliminating much of what he termed "a state of organized confusion." "The business of supervising defense transportation from the D.T.A. level is essentially a simple matter, although, of course, it is possible to complicate it endlessly by attacking the problem in a confused and complicated manner," he stated. "My aim will be to discharge the duties which have devolved upon me with the cooperation and assistance of those who know transportation best—committees of the present officers of railways and other agencies of transportation, who have grown up with the business and are best fitted to conduct it, in peace time or during armed peace or actual war."

Mr. Knudson warned against any feelings of frustration or consternation. He disclaimed any desire to throttle initiative or healthy competition, but explained that, in car handling, complete cooperation is essential. He stated that there are no present plans for issuing compulsory heavier loading orders, but recommended that shippers consider maximum loading on a voluntary basis, for their own economic interest. He also stated that the present general five-day loading and unloading week is cutting down the nation's freight car supply by 15 per cent and urged shippers to resume a six- or seven-day week, stating that he had the assurance of the railways that they will supply necessary switching service.

"Recently," he said, "there has been a letdown by the steel companies in supplying steel for freight car production, resulting in a lag in the number (Continued on page 42)

AVAILABLE EVERWHERE FROM COAST TO COAST

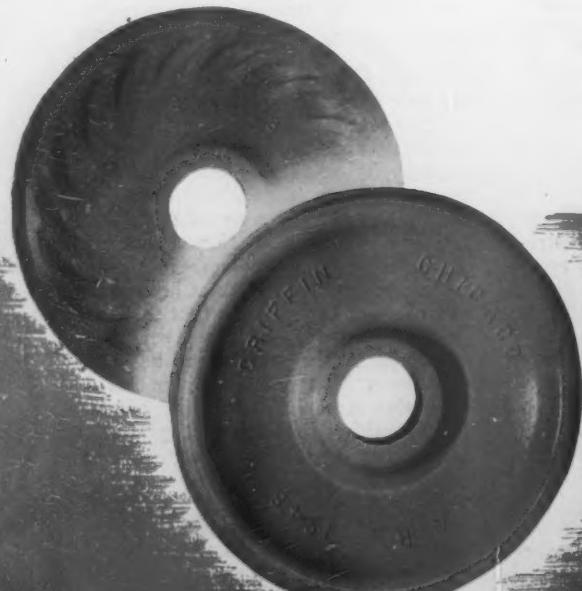
GRIFFIN WHEEL COMPANY

The largest manufacturer of chilled car wheels in the world.

Availability is an important factor in today's critical market when industry is again faced with serious shortages and curtailments.

The great productive capacity of the eleven Griffin Wheel foundries, strategically located throughout the United States, assures prompt deliveries to meet the expanding demands of railroad transportation for our National Defense.

TACOMA • LOS ANGELES • SALT LAKE CITY • DENVER • ST. PAUL • KANSAS CITY • COUNCIL BLUFFS • CHICAGO • DETROIT



DO YOU KNOW THAT —

The derailment records of the I.C.C. show chilled car wheels to be unexcelled for safety?

The new A.A.R. design now being supplied will further improve this enviable record?



GRiffin WHEEL CO.

410 NORTH MICHIGAN AVENUE, CHICAGO 11, ILLINOIS



MEMBER ASSOCIATION OF MANUFACTURERS OF CHILLED CAR WHEELS

(Continued from page 39)

of new freight cars turned over to the railways by the builders. However, conferences and meetings during the past week have corrected this situation and I am confident that there will be a production of at least 100,000 new freight cars in 1951. If there is any further letdown, allocation of steel for this purpose may well be put on a compulsory basis."

Referring specifically to refrigerator cars, which, in view of this season's record-breaking Florida citrus and vegetable crop, were of particular concern to his listeners, the administrator said that this week would see the turning point for the better in refrigerator car supply. He does not anticipate any particular difficulties on this score for the rest of the shipping season.

Mr. Knudson warned that, if necessary, the D.T.A. would "get tough." He stated that service orders issued were not mere scrapes of paper. "If violations of such orders continue to pile up, we will . . . crack down on violators. Freight cars are not being built for use as storage warehouses and such use will not be tolerated."

At a dinner on December 12, under sponsorship of the Miami Traffic Club, Mr. Vogtle urged that transportation agencies compete on the basis of excellence of service rather than destructive rate cutting. "Carrier revenue must be sufficient to permit good service," he said, "and the practice of shippers of playing the various agencies of transportation one against the other is a vicious habit at any time, inimical to the shippers' best interests, and particularly pernicious during times of crisis. It is my opinion that if the numerous specialized freight rates under which traffic is handled below cost

were eliminated, no general freight rate increases would be required. It is these low rates, forced by vicious and unthinking competition, that bleed the carriers white. Such rates were never justified and most of them are products of and residues of the depression. Now, with a shortage of transportation, certainly there is no reason for their existence and the restoration of such depressed rates to normal and economic levels should be undertaken immediately."

Favors "Short Notice" Tariffs

Mr. Vogtle pointed out that, in other industries, prices are raised coincidentally with increased costs, citing the recent steel price increase on the same day wage increases in the steel industry were made effective. "The railways are being hamstrung by the lag between the effective date of increased costs and that of higher rates," he asserted. "They should be permitted to issue short notice tariffs increasing rates when this step is justified by increased costs, with hearings to be held later. The railroad monopoly no longer exists. Unfortunately, the several giants represented by different agencies of transportation are arrayed against one another in armed camps, attempting to destroy the other."

Mr. Vogtle suggested the advisability of shippers advisory boards being broadened in scope to include all forms of transportation. "We have seen," he stated, "that, through the boards, cooperation between railways and shippers has been immeasurably increased . . . It is imperative that we evolve, for the public interest, a cooperation in transportation that will provide the best service at the least cost."

The general meeting of the board was presided over by L. A. Schwartz, vice-general chairman, who is general manager of the New Orleans Traffic & Transportation Bureau. T. M. Healy, district manager, and C. R. Megee, vice-chairman, of the Car Service Division of the Association of American Railroads, reported, respectively, on territorial and national phases of car supply. Mr. Megee admitted that shortage of steel would affect the car building program adversely during January and February, but stated that, because of the reduction in bad order cars and the new cars that would be put in service at a rapid rate beginning in March, it was his opinion that car shortages next year would be materially less severe than in 1950, although some shortages are "inevitable." He pointed out that most of the so-called "deferred retirement" cars kept in service because of heavy war and postwar traffic have now been retired, and that the rate of retirement could be expected to show a material reduction from now on.

Raps Labor Slowdown

A. G. T. Moore, general traffic manager of the Southern Pine Association, New Orleans, made a brief but impassioned address on slowdown tactics of switchmen in certain terminals. "Shipper should take cognizance of and use every means in their power to correct the deplorable tactics of railway labor in the present state of emergency," he maintained.

Port-Control Consultant Appointed by D.T.A.

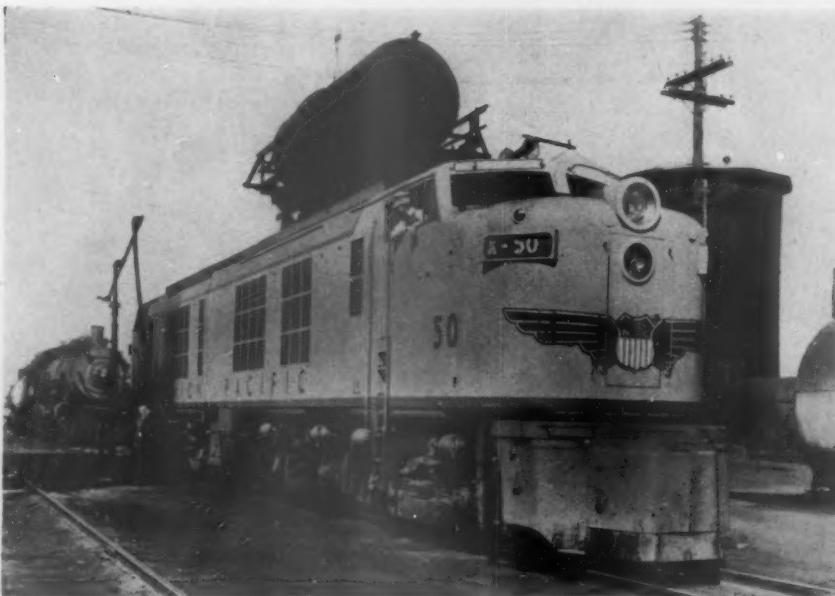
A. S. Johnson has been appointed consultant on port control to the Defense Transport Administration. Mr. Johnson has been port director at Gulfport, Miss., since January, 1947.

Before going to Gulfport, Mr. Johnson was with the former Office of Defense Transportation for about five years. This included service as assistant director of the Railway Transport Department, a position in which Mr. Johnson was in charge of administering O.D.T.'s port-control order—General Order 16.

Court Refuses Review Of W.P. Demurrage Case

The U. S. Supreme Court has refused to review a lower court case involving interpretation of demurrage rules on the Western Pacific at Empire, Nev. The high court denied a petition filed by the railroad in *Western Pacific v. Pacific Portland Cement Company*, a proceeding instituted by the road in an effort to recover demurrage charges on freight cars held by the cement company on its tracks at Empire.

According to evidence reviewed by the lower courts, freight cars were removed from W.P. tracks at Gerlach, Nev., by the cement company's crew and locomotive. The cars were then held on the industry's tracks until switched to the plant for loading. This



THIS 4,500-HP. ALCO-G.E. GAS TURBINE ELECTRIC LOCOMOTIVE, which has been under test on the Union Pacific for a year and a half, is similar

to 10 new locomotives which the U. P. has just ordered, as reported elsewhere in this issue. It is shown here being fueled at Council Bluffs, Iowa



Why be Half-Smooth?

SIMPLEX *unit-type* SNUBBERS



The economies of *controlled spring movement* in new freight trucks have been proved beyond all question. But rough-riding old cars still keep *pounding* themselves, the lading, and the road-bed. You'll be money ahead, without a doubt, when your *old cars* are smooth-rolling, too.

There's nothing better for A.A.R. coil groups than *long-lived* Simplex Snubbers. It's an established fact that these "rubber spring" snubbers give the *smoothest ride* it is possible to get from an A.A.R. Coil Spring Grouping. They prevent resonance . . . absorb damaging impact shocks . . . damp and *smooth* spring action. Few investments you can make offer such *big* returns.

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arrangement had prevailed for about 20 years when the road filed suit to recover demurrage which allegedly accrued on such cars between 1944-46.

The trial court found in favor of the road, holding that demurrage charges should have begun when the cars were removed from W.P. tracks. The Court of Appeals reversed this judgment on the basis that holding the cars on the industry tracks constituted a service to the railroad as well as to the company. This court said that since no demurrage was claimed for more than 20 years "we must presume that the parties understood and intended that the cars not be considered appropriated" until actually spotted for loading.

A brief supporting the W.P. was filed with the Supreme Court by the Interstate Commerce Commission. The commission asked the court to review the case because "the decision (as it now stands) establishes a precedent which will seriously hamper the uniform application of the demurrage rules and enforcement thereof by the commission when applied to cars used by shippers having plant railroads." The I.C.C. brief added that such a decision will create "a multitude of unpublished exceptions to otherwise uniform demurrage rules."

President Signs Forwarder Bill

President Truman on December 20 signed the recently enacted bill, H.R. 5967, which amends the Interstate Commerce Act to accord common-carrier status to freight forwarders, and to authorize forwarders to maintain contract-rate arrangements with motor carriers for terminal-to-terminal trucking up to a distance of 450 miles. Congressional action on the measure was completed December 6, when it was passed by the Senate, the House having acted August 9. (See *Railway Age* of August 12, page 63.)

Canadian Carbuilders Will Get U. S. Steel

Canadian builders of freight cars will receive allocations of United States steel amounting to 8,000 tons monthly during March, April, May and June, 1951, the National Production Authority announced on December 15. The N.P.A. action, embodied in Supplement No. 3 to Order M-1, is designed to aid in carrying out Canada's current program for completion of 11,000 cars.

It was explained that many of the cars involved in the program "are in various stages of construction," and that the steel furnished by U.S. suppliers will amount to about 20 per cent of the requirements, since Canadian mills are furnishing about 80 per cent. The 8,000 tons to be allocated monthly will include: Plates, 1,600 tons; structural, 3,000 tons; hot rolled sheet and strip, 3,400 tons.

Another N.P.A. action, embodied in

an amended version of Order M-6, will make steel products available to Canadian warehouse distributors normally supplied by U. S. mills. "N.P.A." as its press release put it, "emphasized that both actions are intended to further implement provisions of the Statement of Principles for Economic Cooperation issued by the governments of the United States and Canada last October 26."

October Accidents

The Interstate Commerce Commission has made public its Bureau of Transport Economics and Statistics' preliminary summary of steam railway accidents for October and this year's first 10 months. The compilation, which is subject to revision, follows:

Item	Month of October		10 mos. ended with October	
	1950	1949	1950	1949
Number of train accidents	937	647	8,177	7,189
Number of accidents resulting in casualties	60	36	416	399
Number of casualties in train, train-service and nontrain accidents:				
Trespassers:				
Killed	108	93	1,038	1,064
Injured	107	98	996	952
Passengers on trains:				
(a) In train accidents*				
Killed	5	73	6	6
Injured	40	79	1,020	489
(b) In train-service accidents				
Killed	2	1	24	15
Injured	135	137	1,596	1,707
Travelers not on trains:				
Killed	6	6	4	4
Injured	64	71	603	633
Employees on duty:				
Killed	37	34	291	335
Injured	2,088	1,594	17,305	18,720
All other nontrespassers:**				
Killed	182	144	1,313	1,266
Injured	546	467	4,759	4,400
Total—All classes of persons:				
Killed	329	277	2,745	2,690
Injured	2,980	2,446	26,279	26,901
* Train accidents (mostly collisions and derailments) are distinguished from train-service accidents by the fact that the former caused damage of \$275 or more to railway property. Only a minor part of the total accidents result in casualties to persons, as noted above.				
** Casualties to "Other nontrespassers" happen chiefly at highway grade crossings. Total highway grade-crossing casualties for all classes of persons, including both trespassers and nontrespassers, were as follows:				
Persons:				
Killed	169	129	1,213	1,151
Injured	358	328	3,252	2,841

President Gets Report Favoring More Waterways

Three recommendations with respect to inland and intracoastal waterways are included in the report of the President's Water Resources Policy Commission which was made public by the White House on December 17. The recommendations read as follows:

1. The nation should continue the improvement of its inland and intracoastal waterways to standard depths as an important objective of comprehensive multiple-purpose basin programs. This part of water resources development should be integrated into a broader program designed to provide the nation with an economical and efficient coordinated transportation system including railroads, motor transport, waterways, and airways. In such a coordinated system all forms of transportation should be considered as complementary rather than competitive with each other.

2. Waterway charges should not be considered as yardsticks for railroad rates, but rather as rates for traffic which, in the coordinated transportation system, can move more economically by water than by rail. In order to assure the greatest overall contribution of the transportation system to the nation's well-being, railroads should not be permitted to establish discriminatory rates on railroads paralleling waterways.

3. Decisions as to user charges, or tolls, for water commerce should be worked out as part of the whole problem of reconciling and making workable a coordinated transportation system. But with rates for all forms of transportation based on full costs, an interconnected system of modern waterways, coordinated with land transportation, should be able to sustain itself with tolls based on full costs and yield returns on the public investment, while contributing to most economic use of the nation's resources.

The foregoing brought to a close the report's 21-page chapter on "Inland and Intracoastal Waterways." The whole report, with its appendices, is a document of 445 pages, entitled "A Water Policy for the American People." The commission which made the report was appointed by the President last January. It was a seven-man group headed by Morris L. Cooke, an engineer, of Philadelphia, Pa.

The commission's Committee on Domestic Water Navigation Projects and National Transportation Policy was headed by C. E. Childe, who was formerly a member of the Board of Investigation and Research, the temporary study board created by the Transportation Act of 1940. Included in the material supplied to the commission by this committee were three presentations reproduced in the report's appendices. They are: Brief Analysis of the Federal Waterway Program; Examples of Industries and Communities Benefited by the Provision of Waterways; and Waterways as Free Public Highways.

Furlough Fares Exempt from Tax

The 15 per cent tax on amounts paid for transportation of persons no longer applies in connection with reduced-rate, round-trip tickets sold by carriers to armed-service personnel traveling in uniform at their own expense, when on official leave or furlough. The exemption became effective December 15, when President Truman signed a recently enacted bill (H.R. 9840) which amended the Internal Revenue Code for that purpose.

To qualify for the exemption, furlough fares must be on bases of not more than 2.025 cents per mile. The railroads recently published such fares for the Christmas season on a basis, generally, of two cents per mile.

Freight Car Loadings

Freight car loadings for the week ended December 23 were not available when this issue went to press.

Loadings of revenue freight for the

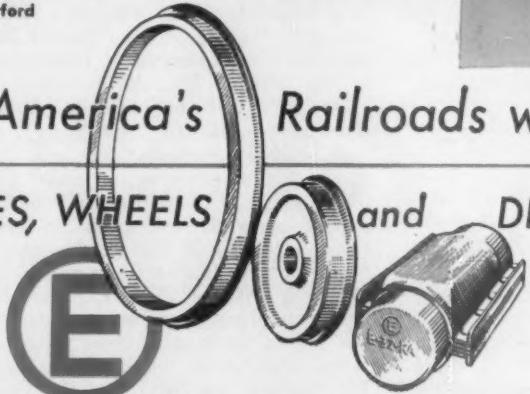
Old Pals

—By Hungerford



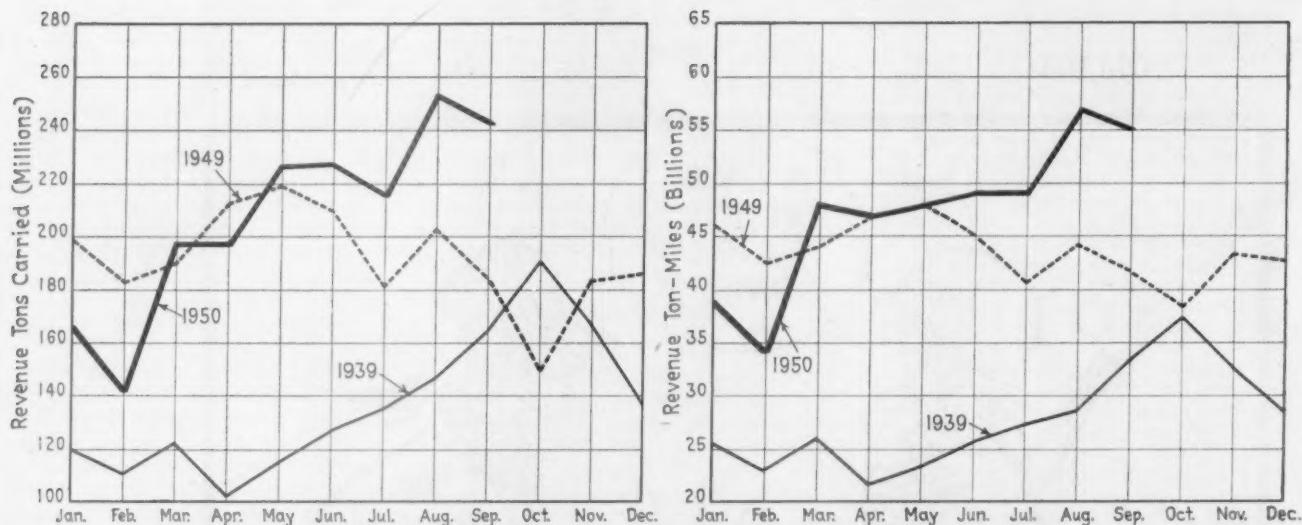
Watch for other railroad cartoons by Mr. Hungerford

Serving America's Railroads with
ROLLED STEEL TIRES, WHEELS and DRAFT GEARS



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REVENUE TONS AND REVENUE TON-MILES—1950 compared with 1939 and 1949

week ended December 16 totaled 772,902 cars, and the summary for that week as compiled by the Car Service Division, Association of American Railroads, follows:

REVENUE FREIGHT CAR LOADINGS For the week ended Saturday, December 16			
District	1950	1949	1948
Eastern	136,456	117,418	140,554
Allegheny ..	159,526	129,099	153,787
Pocahontas ..	60,859	44,782	61,811
Southern ..	136,321	114,144	132,215
Northwestern ..	81,106	70,254	80,134
Cen. Western ..	132,706	106,872	118,072
Southwestern ..	65,928	57,159	67,979
Total Western Districts ..	279,740	234,285	266,185
Total All Rds.	772,902	639,728	754,552
Commodities:			
Grain and grain products ..	53,475	44,615	48,577
Livestock ..	10,517	10,773	11,479
Coal	166,349	126,476	160,260
Coke	15,678	11,579	15,277
Forest products ..	47,516	37,741	42,672
Ore	14,583	11,305	13,990
Merchandise l.c.l. ..	79,175	79,611	93,681
Miscellaneous ..	385,609	317,628	368,616
December 16	772,902	639,728	754,552
December 9	766,743	668,825	782,913
December 2	739,922	693,923	804,172
November 25	701,421	664,555	722,936
November 18	837,065	758,972	858,089
Cumulative total	50 weeks .. 37,549,943	34,792,364	41,525,519

In Canada.—Carloadings for the week ended December 16 totaled 79,580 cars, compared with 78,765 cars for the previous week, and 72,019 cars for the corresponding week last year, according to the Dominion Bureau of Statistics.

Totals for Canada:	Revenue Cars Loaded	Total Cars Rec'd from Connections
December 16, 1950	79,580	34,130
December 17, 1949	72,019	30,524

Cumulative totals for Canada:

December 16, 1950	3,776,896	1,583,808
December 17, 1949	3,792,265	1,543,330

Bus System, Air Line Enter Honoring Agreement

Pan American World Airways and the National Trailways Bus System (through its affiliates, Continental Trailways and Tamiami Trailways) have entered an agreement whereby agents of each organization will ar-

range all transportation details for passengers making a combination air and bus journey. Agents of Trailways, for instance, will make space reservations on Pan American flights to any point abroad and will collect from the passenger, at point of origin, the entire cost of transportation to the overseas destination. Similarly, agents of Pan American abroad will make arrangements for domestic travel within the United States via Trailways, so that the passenger pays his entire fare to the airline agent at the start of the trip.

There is no agreement at this time for the two systems actually to interchange tickets. "Interline" passengers are given an exchange order which they take to the ticket office of the other system at the point of transfer. The order is accepted by the airline or bus agent as payment for the ticket covering the second portion of the trip. For airline reservations, and for information regarding rates, etc., bus agents deal with "control centers" at the Dallas, Tex., headquarters of Continental or the Miami, Fla., headquarters of Tamiami, rather than with the airline direct.

A Trailways representative told *Railway Age* that much of the traffic handled jointly by the airline and the bus system currently originates or terminates at points in the Caribbean and Mexico. "The tourist trade we serve," he said, "comes, in large measure, from smaller American communities not served by long distance passenger trains and where the local bus agent has become the principal source of passenger travel information." Neither Trailways, nor Pan American, he explained, believe air-bus cooperation will "cause any new schedules to be put on overnight." He indicated, however, that with expansion of "air-tourist" service (as Pan American's overseas air-coach service is called), patronage of the inter-system service would increase in volume. It is also expected, he said, that the service

would be used by travelers going to, or coming from, more distant points on the Pan American system.

"Safety First" on L. I., Draper Tells Press

"First consideration under my trusteeship will be given to safety," William H. Draper, Jr., newly appointed trustee of the Long Island, told press representatives at a special conference in the railroad's Jamaica, N. Y., headquarters on December 26.

Mr. Draper, however, emphasized the railroad's "unparalleled" safety record prior to the accidents at Rockville Centre, N. Y., on February 17 and at Kew Gardens on November 22. (See *Railway Age* of February 25, page 56, and December 2, page 72.) In his "first official act"—a letter to the road's 7,500 employees asking them "to do their level best to make our railroad safe for our passengers and for our employees"—he had said also:

"For 23 years you ran this railroad and carried more than two billion passengers without causing a single passenger fatality in a train accident—an unparalleled record. I am confident that you can and will do this again."

As an immediate safety measure, Mr. Draper told the press conference, "installation of a new red warning light for the rear end of all trains is being carried out on a 24-hr. basis, and 50 cars equipped with these lights are already in service." The light, which is visible for about a mile, was devised by the railroad's new general manager, Frank H. Simon. (See *Railway Age* of December 16, page 52, and December 23, page 32.) As another immediate safety measure, the new trustee also said, the permissible "proceeding" speed of trains halted by a "stop and proceed" signal indication has been reduced from 15 to 12 m.p.h.

With respect to the "long range safety problem," Mr. Draper said:

"All known safety devices and systems



Modern Road Locomotives

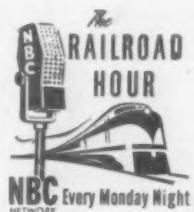
**share one important thing
between them . . .**

the 24·RL

There is one vital piece of equipment that all modern road locomotives have in common—Westinghouse 24-RL Brake Equipment. Combining of various interchangeable sections provides a wide combination of functions, which completely meet the needs of all normal assignments.

The flexibility of the 24-RL is particularly helpful in cases where assignments have not been completely defined when locomotive construction starts. Selected sections can be inserted at any time. Substitutions may be made after locomotives are in service, with no change in basic piping, if changes in assignment make this desirable.

Several typical combinations, which suggest the broad possibilities of the 24-RL, are illustrated and described in Catalog No. 2058. A copy will be sent on request.



*Brakes are Basic
to
Railroad Progress*

Westinghouse Air Brake Co.

WILMINGTON, PA.



News Briefs . . .

. . . "A Century of the American Railroad," in paintings, watercolors and prints, is the subject of an exhibit running from December 11 through January 13 at the American British Art Gallery, 122 East 55th street, New York.

. . . Christmas on the Baltimore & Ohio began at 8 p. m. December 16, when officers and employees participated in the ceremony of lighting—electrically—the 50-ft. holly tree at Jackson, Md., adjacent to the railroad's New York-Washington main line. Throughout the Christmas season, B. & O. employees on trains, in stations and in ticket offices wore sprigs of holly cut from the tree.

. . . Itinerant Santa Clauses rode the passenger trains of at least two major railroads—the Missouri Pacific and the Norfolk & Western—during the week preceding Christmas. The N. & W. Santa, the road said, had filled stockings for each child, and favors for adult passengers.

. . . Ohio State football fans in the Akron area probably believe now in Santa Claus! The Erie, through its division passenger agent at Akron, J. Paul Clark, announced just before Christmas that it would make refunds to persons who purchased tickets but were unable to ride the "Buckeye Special" to the Ohio State-Michigan football game at Columbus on November 25, because of the heavy snowstorm. Over 500 rail tickets were sold, but because of bad weather, only about

150 rugged fans showed up to make the trip. "The Erie didn't want to disappoint the fans for such an important game so we decided to run the special anyway," Mr. Clark said. "Under Ohio laws, the Erie is not required to refund unused train tickets since the excursion was made as scheduled. However, we realize that hundreds of persons were prevented from reaching our station on that day. We asked the Public Utilities Commission to waive the 'no-refund' rule . . . The Erie will assume the loss incurred by operating the special train for the small number of people who showed up."

. . . We can't overlook mentioning the Christmas party given by the crew of Boston & Maine train No. 119 for 18-month old Karen Morissette of Exeter, N. H., on December 12. Karen, a leukemia victim, who may never see another Christmas, had been using the train for weekly visits to the Children's Medical Center in Boston. The party, engineered by Conductor Henry Bowen of Beverly, Mass., included a Christmas tree and presents from train crew and passengers.

. . . Running time of the Pennsylvania's "Chicago Daylight Express" between Cincinnati, Ohio, and Chicago has been cut by 25 minutes.

. . . Operating revenues for the Minneapolis, St. Paul & Sault Ste. Marie, and for its subsidiary Wisconsin Central, reached an all-time high during October. President G. A. MacNamara attributed the good showing to the large movements of grain and iron ore and to accruals for retroactive mail pay adjustments.

are under careful study by a safety committee appointed by the governor's Long Island Rail Road Commission, and they are being given every consideration for application to this railroad. Recommendations of the Interstate Commerce Commission for installation of automatic train control (*Railway Age*, December 23, page 31) have been under careful consideration.

"I have consulted with responsible public authorities, including the commission appointed by the governor of the state of New York, and with expert railroad advisers, including Col. Sidney H. Bingham, chairman of the [New York City] Board of Transportation, and Richard E. Dougherty, retired vice-president of the New York Central, both of whom are acting as consultants to me. There is complete agreement that the recommendations made by the I.C.C. should be carried into effect. Additional safety recommendations made by other public bodies will also be given full consideration. It is clear, however, that we should immediately take the necessary steps toward installation of safety devices recommended by the I.C.C."

"There has obviously not been time since my confirmation to determine the most feasible manner in which to obtain the needed funds, which are estimated tentatively to approximate \$6,000,000. This question of financing will naturally have to be determined after the whole project has been studied.

"However, it is in the best interest of all concerned to proceed immediately to

design the safety system recommended by the I.C.C. For this purpose cash is available, as the amount estimated to cover the initial cost of design is not more than \$150,000. To expedite this, we have already gone into the requirements with the Union Switch & Signal Co., which has supplied most of the signal equipment now in use. A. N. Williams, president, has assured me his company is prepared to proceed immediately with design work and expedite it to the greatest degree possible.

"I have discussed this immediate program informally with Federal Judge Harold M. Kennedy, and within a day or two will present a petition for formal approval by him of arrangements for design work. I will also ask authority to work out some method of financing the safety installation as recommended by the I.C.C."

Mr. Draper further revealed that he had been promised "full cooperation" by all railroad department heads and by representatives of all standard railroad labor organizations representing Long Island employees; and that David E. Smucker, one of the two former trustees, had agreed to remain "temporarily" in a consulting capacity. Mr. Smucker's assistance, the new trustee said, would be "invaluable," since "he knows more about the railroad than any other living person."

Expressing a strong preference for private, as against public, ownership, Mr. Draper said he expected shortly to receive from the commission recently appointed by New York State Governor Thomas E. Dewey, a "reorganization plan," designed to get the road "out of bankruptcy," but refused to comment on what such a plan might contain.

The appointments of Mr. Draper and Mr. Simon, respectively, are reported elsewhere in this issue.

Road Service Tests Of Laudig Bearings

The A.A.R. Mechanical Division has recently authorized service tests of 100 cars equipped with Laudig iron-back journal bearings in interchange service. In order that full benefits from these tests may be realized, detailed instructions have been given regarding application of the bearings, condition of wedges and box roofs, bearing marks, stenciling and records.

The A.A.R. circular pertaining to Laudig bearings, dated November 30, listed six cars on the Pennsylvania and ten cars on the New York Central as already equipped with these bearings, other installations being scheduled for cars of the Baltimore & Ohio; Delaware, Lackawanna & Western; Denver & Rio Grande Western; and Norfolk & Western. The circular requested prompt return of any test bearings which develop defects to specified officers on the individual roads. Associated axles with journals damaged by contact with the iron back of the Laudig bearings are also to be returned, as this type of information is specifically desired.

Erie Begins Lockport-North Tonawanda Freight Service

The Erie began on December 15 to provide freight service to industries in the Lockport, N. Y.-North Tonawanda area which were formerly served by the International.

The action by the Erie was taken after the Interstate Commerce Commission granted permission to the International to abandon freight service between the Erie at North Tonawanda and industries along the way and within Lockport corporate limits, C. S. Kinback, superintendent of the Erie's Buffalo division, said.

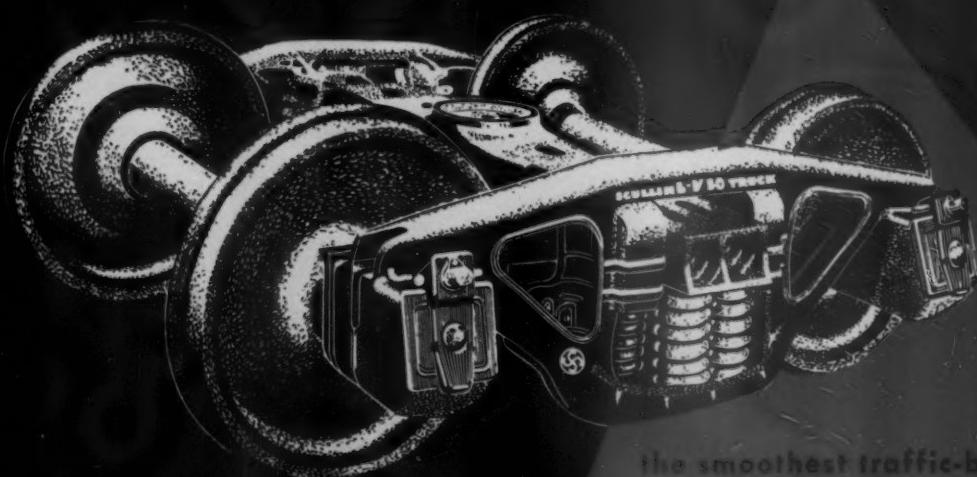
To serve Lockport industries, it was necessary for the Erie to take possession of its trackage between North Tonawanda and Lockport, 13 miles, formerly leased to the International, and to purchase the Gulf line, four miles of track, from International. The newly acquired tracks connect the Erie with Lowertown, as Lockport's industrial district is known. In addition, the Erie secured from the New York Central trackage rights previously enjoyed by International in the industrial district. (See *Railway Age* of November 25, page 63.)

The Erie superintendent said "The



For
extra-protection
of your "extra-fare" freight... SCULLIN

LATERAL VERTICAL
50 TRUCKS
CUSHIONED MOTION



SCULLIN STEEL CO.
SAINT LOUIS 10, MISSOURI

the smoothest traffic-builder
between
LCL and your rails.

NEW YORK • CHICAGO • CLEVELAND • BALTIMORE • RICHMOND, VA. • MEXICO CITY, D. F.

section between North Tonawanda and Lockport will be known as the Lockport branch of the Erie's Buffalo division. Officer in charge of operations will be T. O. Peterson, agent at Lockport.

"The Erie will use radio-equipped diesel locomotives, replacing electric power used by the International."

SUPPLY TRADE

Pullman-Standard Buys Tractor Equipment Firm

On December 29, the Pullman-Standard Car Manufacturing Company acquired the entire tractor accessory business of the Isaacson Iron Works, with plants at Seattle, Wash., and Rockford, Ill. In a statement to parent Pullman, Inc.'s stockholders, President Champ Carry said that "while the Isaacson business is not large in relation to Pullman-Standard's present volume of railway car business, the acquisition is considered to be an attractive opportunity to enter a new field where growth potentialities are clearly apparent and for which Pullman-Standard's facilities and resources are well adapted."

Mr. Carry said activities of the Isaacson plant at Seattle will be transferred as soon as possible to the Hammond (Ind.) plant of Pullman-Standard, but that operation of the Isaacson plant at Rockford would be continued. Tractor accessories produced by Isaacson include bulldozers, scrapers, rippers, hydraulic power units, hauling winches and similar equipment utilized by crawler-type tractors, primarily in the earth-moving field. They are sold domestically by distributors handling crawler-type tractors of the International Harvester Company, while foreign accessory sales are handled

through the International Harvester Export Company.

American Steel Foundries Net Totaled \$3,719,075

Consolidated net income of American Steel Foundries for the fiscal year ended September 30, 1950, was \$3,719,075, compared with \$6,505,442 in the preceding fiscal year, according to the recently released annual report. Sales in the fiscal year just ended totaled \$54,401,235, compared with \$74,619,329. Unfilled orders on last September 30, the report said, were \$46,000,000, the largest backlog the company has had in the postwar period.

C. G. Gehringer, whose promotion to manager of Fairbanks, Morse & Co.'s branch house at Louisville, Ky., was reported in last week's *Railway Age*, received his civil engineering de-



Henry A. Sperry, whose appointment as sales representative in the St. Louis, Mo., office of the Safety Car Heating & Lighting Co. was reported in last week's *Railway Age*. Before this appointment, Mr. Sperry had been in the company's engineering department at New Haven, Conn.



C. G. Gehringer

gree from the University of Cincinnati. He joined the Fairbanks-Morse sales organization in September, 1936, and in 1938 was assigned as a field engineer to the company's Columbus, Ohio, of-

fice. He served with the U. S. Army during World War II in the Far East with the rank of captain, and upon his return became a field engineer and special representative for Fairbanks, Morse at Louisville.

Robert B. Barnhill has been appointed manager of mobile radio sales of the Bendix Radio division of the **Bendix Aviation Corporation**, with headquarters at Baltimore, Md. He was formerly district sales manager at Chicago. Mr. Barnhill served in the U.S. Navy from 1942 to 1945 as a chief aviation radio technician, and entered the mobile radio communications field as a sales and service engineer for the Aireon Manufacturing Company, where he participated in pioneering in the railroad activities of that company. He joined Bendix during the summer of 1947 as a sales engineer, and, on October 1 of the same year was appointed manager of the Kansas City office. In February, 1949, Mr. Barnhill was promoted to district sales manager at Chicago. In his new position, he will supervise sale of communications radio equipment for use by the railroad, maritime and petroleum industries.

M. J. Donovan has been appointed assistant to the president of the **Franklin Railway Supply Company**, effective January 1. Mr. Donovan began his career in 1924 as a special apprentice with Kitson & Co., locomotive builders of Leeds, England. Coming to this country in 1926, he joined the engineering department of the Baldwin Locomotive Works, and was associated, successively, with the Erie as leading locomotive draftsman, and the Chesapeake & Ohio as chief draftsman, locomotives. From 1938 to 1943 he was assistant to the chief mechanical officer of both the Erie and the C&O, as well as the New York, Chicago & St. Louis and the Pere Marquette. In 1943 he



NEW PITTSBURGH (PA.) FACTORY BRANCH STORE of the Link-Belt Company, which was opened recently at 5020 Centre avenue, will serve both

as a stock center for power transmission and materials handling equipment and as a headquarters for the firm's recently enlarged Pittsburgh staff

FREEDOM WHEELS



Users' experience certifies Freedom Wheels as the most successful means of eliminating thermal cracking under the unusually severe braking conditions in today's high speed operations.

Over 500,000 in service. Ask a user about Freedom Wheels' high-speed, severe-braking performance.

The Baldwin Locomotive Works, Standard Steel Works Division, Burnham, Pa., U. S. A.
Offices: Chicago, Cleveland, Houston, New York, Pittsburgh, Philadelphia, San Francisco, St. Louis, Washington.



BALDWIN STANDARD STEEL WORKS DIVISION

7799

was named mechanical engineer of the Lima Locomotive Works, later a division of the Lima-Hamilton Corporation. Mr. Donovan became chief engineer of Lima-Hamilton's Locomotive division early in 1950, and continues in that capacity until assuming his new duties with Franklin.

George W. Morrow has been appointed sales manager in charge of the Central and Southern district for the Power Ballaster Products division of the **Pullman-Standard Car Manufacturing Company**. At the same time **John C. Bell** becomes sales manager in charge of the Northeastern



George W. Morrow

district and **Robert C. Caldwell**, manager of the South and Southwestern sales district. Mr. Morrow began his railroad career with the New York, New Haven & Hartford, becoming track supervisor in 1916. In 1926 he joined the Ingersoll Rand Company, continuing with that organization until



John C. Bell

1940, when he went into business for himself in the maintenance of way equipment field. He became manager of railroad sales for the Construction Equipment division of Worthington Pump & Manufacturing Corp. in 1942, and in May, 1949, joined Pullman-Standard.

Mr. Bell is a native of New England.

He also began his career with the New Haven, serving in various positions in that road's maintenance of way department. Prior to joining Pullman-Standard this year, he was division engineer and engineer of track on the New Haven.

Mr. Caldwell began his business career with the Acme Steel Company, Riverdale, Ill. Following a tour of duty



Robert C. Caldwell

with the U. S. Army Air Forces in World War II, he joined the Illinois Central's engineering department at Clinton, Ill. Subsequently he became engineer in charge of track, signal, building and valuation for the Jacksonville (Fla.) Terminal, in which position he was serving prior to becoming associated with Pullman-Standard.

J. E. Vaughn has been elected vice-president in charge of sales of the **Standard Railway Equipment Manufacturing Company**, with jurisdiction over sales in the United States and Canada. **S. L. Beymer** has been elected vice-president and executive assistant to the president.

David R. Hull, assistant manager of the equipment divisions of the **Raytheon Manufacturing Company**, has been elected a vice-president of the firm. On January 1, Mr. Hull will become manager of the equipment divisions, to succeed **Wallace L. Gifford**, who will continue with the company as a director and vice-president in an advisory capacity.

D. B. Bishop, sales representative for the **Dearborn Chemical Company** in the Pittsburgh, Pa., area, has been appointed manager of the company's office in that city, succeeding **J. A. Crenner**, who has retired.

The **American Locomotive Company** has established a new organization at its Schenectady, N. Y., plant to handle ordnance production while continuing intact its organization for manufacturing diesel-electric locomotives. Railroad customers have been assured, in a policy letter from **Duncan W. Fraser**, Alco chairman and president, that Alco-General Electric locomotives and parts will continue to be

produced at capacity levels and that commitments on deliveries would be met just as in the past, unless national conditions affecting all builders interfere. **A. M. Hamilton**, vice-president, is in charge of the new Ordnance division, and **W. E. Corrigan**, another vice-president, has been appointed contracting officer of the division.

Robert Gregg will retire as president of the **Tennessee Coal, Iron & Railroad Co.**, a subsidiary of the **United States Steel Corporation**, on January 1 and will be succeeded by **Arthur V. Wiebel**, presently vice-president in charge of operations. **John Pugsley**, comptroller, has been elected to the newly established position of executive vice-president, also effective January 1. Succeeding Mr. Wiebel will be **J. M. Spearman**, who advances from the position of manager of manufacturing operations. Mr. Pugsley's successor will be **Hartwell A. Greene**, presently assistant comptroller.

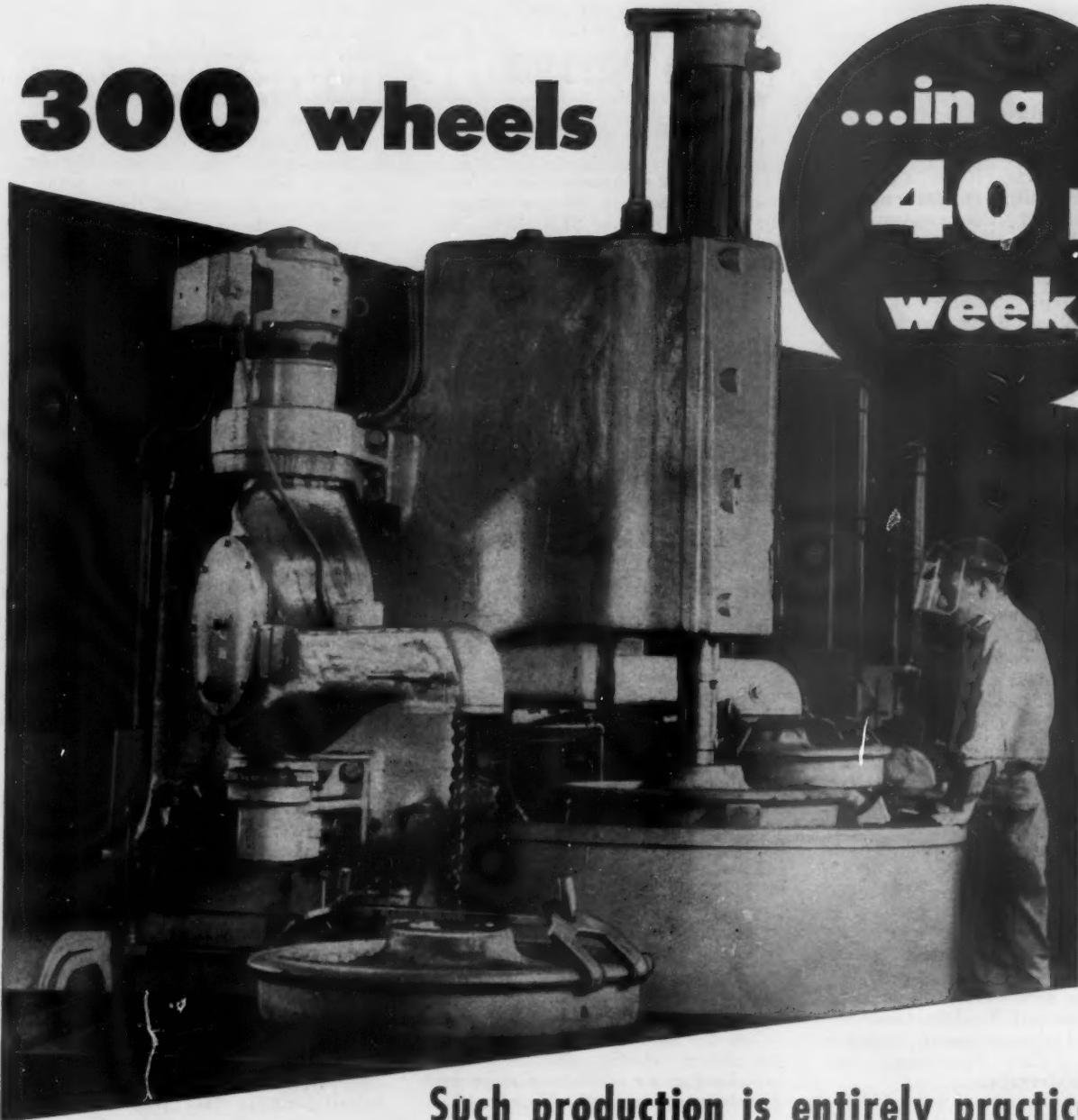
The following appointments, effective January 1, have been announced by the **General Railway Signal Company**: **Arthur E. Heimbach**, as sales vice-president; **Albert G. Moore**, director of publicity; and **Arthur W. Taff**, advertising manager. Mr. Heimbach, with headquarters in Rochester, N. Y., will be in charge of sales here and in Canada. He was born on December 23, 1902, in Allentown, Pa. After graduating in electrical engineering from Pennsylvania State College in 1924 he completed the two-year apprenticeship course of the Union Switch & Signal Co., for which



Arthur E. Heimbach

he served as engineer until 1927, when he became train control supervisor of the Pittsburgh & Lake Erie. In 1931 Mr. Heimbach was appointed assistant signal engineer. Two years later he became assistant signal and telegraph engineer, and in 1937 was promoted to principal assistant engineer. He joined General Railway Signal in 1941, in Chicago, as sales engineer. He was made resident manager of the Chicago office in 1945 and western manager in 1948, advancing to vice-president of

300 wheels



...in a
40 hr
week

Such production is entirely practical

with the



HYDRAULIC CAR-WHEEL BORER

The report which we received recently with a photograph of a Niles Hydraulic Car-Wheel Borer said simply: "Tools No. 44 Carb.tips. A cast wheel every 4 minutes. A steel wheel every 6 minutes."

We know of enough other shops that are also consistently turning out 60 or more wheels in eight hours to say that 300 wheels in a 40-hour week is entirely practical.

This Niles Hydraulic Car-Wheel Borer has a range of table speeds and feeds designed for carbide tools. After the desired speeds and feeds for roughing, finishing and chamfering are selected,

they are automatically engaged at the proper time during the cycle. The cycle itself is entirely automatic, from movement of starting lever to return traverse of the boring bar and application of table brake. Wheels are chucked and unchucked by pressing buttons. Provision is made for hub facing, with hydraulic feed. (Attachment not in use when this photograph was taken.)

The Niles borer may be, and usually is, supplied with its own cranes—one, or one on each side—driven by separate motors and bolted to the machine frame. These cut loading and unloading time.

To date, 34 railroads and nine car and

locomotive builders have purchased 74 of these machines. We will be glad to help you make arrangements to see one in operation. Just call the Lima-Hamilton sales office in New York, Chicago, or other principal cities, or write direct to Lima-Hamilton Corporation, Hamilton, Ohio.



NILES TOOL WORKS CO. • A Division of Lima-Hamilton Corporation • HAMILTON, OHIO

sales in the western United States and Canada in January, 1950, which position he held until his recent appointment.

Harry J. Leddy has been elected executive vice-president of the **Shippers' Car Line Corporation**, subsidiary of the **American Car & Foundry Co.** **John B. Davenport** has been named vice-president in charge of sales.

E. G. Doke, assistant to president, and **J. J. Murphy**, manager of sales, of the **MacLean-Fogg Lock Nut Company**, have been appointed vice-presidents.

ORGANIZATIONS

Officers of the **Signal Section** of the Engineering Division of the **Association of American Railroads** for 1951 have been named, as follows: Chairman, D. W. Fuller, signal engineer, Atchison, Topeka & Santa Fe; first vice-chairman, E. S. Taylor, engineer of signals, Canadian Pacific; and second vice-chairman, R. W. Troth, superintendent, communication and signals, St. Louis-San Francisco. W. G. Salmonson, assistant chief engineer—signals, Pennsylvania, and A. L. Essman, chief signal engineer—system, Chicago, Burlington & Quincy, have been elected to the committee of direction for the term January 1, 1951, to December 31, 1954.

G. O. Stanley, of the traffic department of the Tennessee Eastman Corporation, has been elected president of the **Appalachian Traffic Club** for 1951. S. R. Jennings, also of Tennessee Eastman's traffic department, was elected secretary-treasurer.



John G. Bucuss, general manager of the Steel Strapping division of the **Acme Steel Company**, has been elected president of the Materials Handling Institute for 1951. Mr. Bucuss has served in other official capacities with M.H.I. for the past three years.

EQUIPMENT AND SUPPLIES

FREIGHT CARS

The **Bangor & Aroostook** has been authorized to acquire 500 new refrigerator cars at a cost of \$4,500,000. This equipment, to be purchased from contract builders or built at the road's Derby, Me., shops, is in addition to 500 refrigerator cars being rebuilt at Derby at a \$1,500,000 cost, and the 300 box "heater cars" recently delivered by the Magor Car Corporation at a cost of \$2,100,000 (see *Railway Age* of May 13, page 68).

The **Lehigh & New England** has ordered 500 50-ton hopper cars from the American Car & Foundry Co.

LOCOMOTIVES

U. P. Orders 10 G. E. Gas Turbine Electrics

The Union Pacific has ordered 10 gas turbine electric locomotives from the General Electric Company. Placement of the nation's first order for these locomotives was announced by A. E. Stoddard, U.P. president, who said they will be similar to a 4,500-hp. unit which has been undergoing test on regular freight runs of the U. P. for the past year and a half. Delivery is expected to begin in the latter part of 1951. Mr. Stoddard said the new locomotives will be assigned to regular freight service and will permit the U.P. to "evaluate more fully, under a wider variety of operating conditions, the potentialities of this new type of motive power."

"On the basis of results to date, the gas turbine electric locomotive looks promising as an addition to steam and diesel-electric power," Mr. Stoddard

added. "Tests to date have been most encouraging."

This gas turbine electric locomotive outwardly resembles a straight electric locomotive in appearance. It requires virtually no water and has few moving parts. It uses low cost Bunker C oil as fuel. The gas turbine power plant is similar in principle to the power plant in jet planes, except that there is no jet effect, or thrust, as in a plane. In the locomotive, the turbine is connected through reduction gears to electric generators. The locomotives will be geared for freight service and will have a top speed of 65 m.p.h. Unlike the developmental unit, which has an operating cab at each end, the new locomotives will have a cab only at the front end.

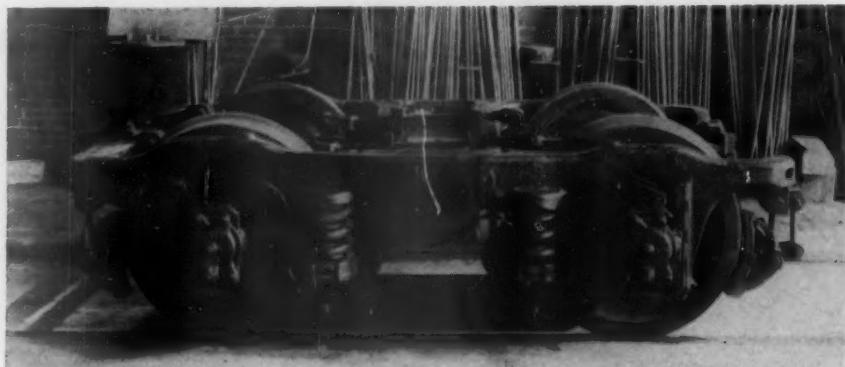
In the latest report on performance of the developmental unit on the U.P., G. W. Wilson, manager of the G.E. Locomotive and Car Equipment divisions, said it has operated nearly 80,000 mi. in regular freight service and handled 285,800,000 gross ton-miles. The turbine power plant has been in operation nearly 5,000 hours.

The new locomotives will be 83 ft., 7½ in. long over knuckles, 14 ft., 3 in. high over roof sheets and will negotiate curves of 288-ft. radius. The running gear will consist of four two-axle trucks, with each truck equipped with two traction motors. The weight will be approximately 253 tons.

Locomotives on Order

Class I railroads on December 1 had 1,657 locomotives on order, the largest number on order at any time in the past 27 years, according to the Association of American Railroads. The December 1 total included 1,634 diesel-electrics, 17 steam locomotives, and 6 electrics.

New locomotives placed in service in November totaled 200, including 196 diesel-electrics, 2 electrics, and 2 steam. Installations in this year's first 11



IN DESCRIBING the new Commonwealth B-X type truck for commodity cars operating in passenger train service, the statement was correctly made on page 61 of the November 18 *Railway Age* that this truck may be arranged either for clasp brakes or single-shoe brakes, and for roller bearings or plain bearings. B-X trucks under the

box car shown in the descriptive article, however, were equipped with plain bearings and single-shoe brakes, not with roller bearings and clasp brakes as stated in the caption. A B-X truck to which roller bearings and clasp brakes are applied is shown in the accompanying illustration.

For maximum Diesel Performance use Vanadium Steels and Irons

You can obtain the mechanical properties required for satisfactory operation and long service life of Diesel locomotives by using Vanadium steels and irons.

Vanadium steel forgings, as well as Vanadium iron castings, have been designed for the best balance of mechanical properties obtainable for the service required of each specific part.

Recommended steel and iron compositions are given in the accompanying list for a variety of parts, many of which have already established satisfactory service records. A choice of materials is shown in some instances, in recognition of preference and of those variations in design and type of service which govern the properties required.

The metallurgical engineers of the Vanadium Corporation of America realize that each part is an individual problem, and they are prepared to cooperate with you to the fullest extent in selecting the best material for each application.

• • •
Write for Data Sheet giving details of composition, heat treatment and mechanical properties of Vanadium steels and irons for various Diesel applications.

MAKERS OF
ALLOYS



CHEMICALS
AND METALS

PART	MATERIAL
STEELS	
AXLES	C-V steel
BRAKE RIGGING CASTINGS	Mn-V cast steel
CAMSHAFTS	Cr-V (AISI 6120) steel
COUPLERS	Mn-V cast steel
CRANKSHAFTS	Cr-Mo-V (4140+V) steel Ni-Cr-Mo-V (4340+V) steel Cr-V (6140) steel Cr-V (50T46) steel C-V (1045+V) steel
ENGINE BLOCK BASE	Mn-V plate steel
EQUALIZERS	Mn-V steel
GEARS	Cr-V (6145) steel
INJECTOR TIPS	Cr-V (6145) steel
PISTON PINS	Cr-V (AISI 6120) steel
ROCKER ARMS	Mn-V cast steel
ROCKER ARM BRACKETS	Mn-V cast steel
ROCKER ARM SHAFTS	Cr-V (AISI 6120) steel
SPRINGS	Cr-V (AISI 6150) steel Cr-Mo-V steel
TRUCK FRAMES	C-V cast steel Mn-V cast steel Ni-V cast steel
IRONS	
CYLINDER HEADS	Mo-V cast iron, Graphidox-treated*
CYLINDER LINERS	Cr-Mo-V cast iron, Graphidox-treated* Mn-V cast iron
EXHAUST MANIFOLDS	Mo-V cast iron Cr-Mo-V cast iron, Graphidox-treated*
PISTONS	Ni-Mo-V cast iron, Graphidox-treated* Mo-V cast iron, Graphidox-treated* Ni-Cr-Mo-V cast iron, Graphidox-treated*

*Graphidox is a graphitizing and deoxidizing alloy.

VANADIUM CORPORATION OF AMERICA

420 LEXINGTON AVENUE, NEW YORK 17, N. Y. • DETROIT • CHICAGO • CLEVELAND • PITTSBURGH

months were also greater than in any comparable period in 27 years. The total, 2,132, included 2,111 diesel-electrics, 11 steam and 10 electrics. During the first 11 months of this year Class I roads placed orders for 2,891 locomotives, the best record since 1923.

SIGNALING

The Western Pacific has ordered from the Union Switch & Signal Co. material to rehabilitate automatic signaling on approximately 178 mi. of double track between Weso, Nev., and Alazon. The order includes style H-2 searchlight signals, relays, rectifiers, transformers and housings. Field work will be handled by railroad forces.

MARINE

The Erie has ordered five steel car floats from the Bethlehem Steel Company at an estimated cost of about \$1,000,000. The equipment, to include two 16-car floats and three 10-car units, will be used in New York harbor and will replace all the road's wooden floats. R. C. Randell, vice-president, said.

CAR SERVICE

"To cope with transportation problems in the handling of car service matters," the I.C.C. has created within its Bureau of Service, three additional sections—the Closed Car Section, the Open Car Section, and the Car Utilization Section. As chiefs of the sections, respectively, the commission has appointed Kenneth K. Stokes, former general superintendent of transportation of the Chicago, Rock Island & Pacific; Walter J. Howard, former demurrage specialist of the Pennsylvania; and Howard S. Kline, former consultant on freight rates. The commission's announcement explained that the Open Car Section would handle "all matters pertaining to demurrage and coal at tidewater and lake ports." It also noted that the Defense Transport Administration had advanced the funds required for the new set-up.

I.C.C. Service Order No. 872, effective from December 22 until March 22 unless otherwise modified, establishes a permit system in connection with movement of grain to New Orleans, La., and Texas Gulf ports. The order prohibits railroads from transporting grain to those ports unless a permit is first obtained. A. S. Johnson, of the Defense Transport Administration's staff, is made commission agent with authority to establish and administer permit arrangements. T. M. Healy, 204 Southern Railway building, Atlanta, Ga., is permit agent for the port of New Orleans, while D. R. Swain, 606 Fannin building, Houston, Tex., is agent for Texas Gulf ports.

I.C.C. Service Order No. 848 has been modified by Amendment No. 3 which set back the expiration date from December 31, 1950, to March 31, 1951. The order permits use of S.F.R.D. and P.F.E. refrigerator cars (those which are not suitable for commodities requiring protective service) for transportation of cotton from points in California and other western territory to points on the Atchison, Topeka & Santa Fe, the Southern Pacific, the Union Pacific, and the Texas & New Orleans.

FINANCIAL

Central Vermont.—*New Director.*—John R. Reitemeyer, president and publisher of the Hartford Courant, has been elected to the board of directors of this road, a subsidiary of the Canadian National.

Elgin, Joliet & Eastern.—*New Director.*—To fill the unexpired term of the late Royal B. Cushing, the board has elected to membership R. C. Stevenson, member of the law firm of Knapp, Cushing, Hershberger & Stevenson, Chicago.

Long Island.—*New Trustee.*—See Railway Officers—Executive.

Minneapolis, St. Paul & Sault Ste. Marie.—*New Director.*—Arthur H. Quay, president of the First National Bank of Minneapolis, Minn., has been elected to membership on this road's board of directors.

Parr Terminal.—*Acquisition.*—This company has been authorized by the I.C.C. to acquire and operate approximately 3,850 ft. of track, now owned by the Parr-Richmond Industrial Corporation, at Richmond, Cal. The commission also authorized the company to issue 5,300 shares of stock, par value \$10, proceeds from the sale of which will be used to pay for the above trackage, and provide funds for equipment and working capital. Parr Terminal will be a wholly owned subsidiary of the industrial corporation. The trackage to be operated by P.T. connects a bulk cargo wharf at Richmond with nearby interchange tracks of the Southern Pacific and the Atchison, Topeka & Santa Fe. In authorizing the industrial corporation to set up the railroad subsidiary, the commission imposed a condition that the S.P. and the Santa Fe be given a 10-year option under which those roads may acquire joint control or ownership of the line.

Toronto, Hamilton & Buffalo.—*New Director.*—William L. Collins, vice-president of the Niagara Mohawk Power Corporation, has been elected to this road's board of directors to succeed Joseph M. O'Mahoney, who remains secretary of the company.

New Securities

Applications have been filed with the I.C.C. by:

Description and Builder	Estimated Unit Cost
6 4,500-hp. road freight locomotives, each consisting of two "A" units and one "B" unit (Electro-Motive Division, General Motors Corporation)	\$504,178
4 3,000-hp. road freight locomotives, each consisting of two "A" units (Electro-Motive)	346,306
1 1,500-hp. road freight locomotive (Electro-Motive)	173,153
2 1,500-hp. road-switching locomotives (Electro-Motive)	152,361
5 1,200-hp. switching locomotives (Electro-Motive)	98,999

The certificates, to be dated February 1, 1951, would mature in 10 annual installments of \$400,000 each, beginning February 1, 1952. They would be sold on the basis of competitive bids, with the interest rate to be set by such bids.

VIRGINIAN.—To issue nominally \$4,812,000 of first lien and refunding mortgage bonds, series D, due December 1, 1975. The bonds would be dated December 1, and would bear interest at 3 1/4 per cent. The application said they would be retained in the company treasury uninsured and unpledged "until such time as the applicant is in need of funds to carry on its proper corporate purposes."

Dividends Declared

Norfolk & Western.—4% adjusted preferred, 25¢, quarterly, payable February 9 to holders of record January 17.

Piedmont & Northern.—75¢, quarterly, extra, \$2, both payable December 27 to holders of record December 11.

Security Price Averages

	Dec. 26	Last week	Last year
Average price of 20 representative railway stocks	53.34	54.33	39.57
Average price of 20 representative railway bonds	97.87	97.23	89.01

Investment Publications

[The surveys listed herein are, for the most part, prepared by financial houses for the information of their customers. Knowing that many such surveys contain valuable information, *Railway Age* lists them as a service to its readers, but assumes no responsibility for facts or opinions which they may contain bearing upon the attractiveness of specific securities.]

Business Week, 330 W. 42nd st., New York 18.

Rails: War Baby of the Year. Rail stock prices are 47 per cent higher than in July. That makes them bigger gainers than industrials or utilities. War business means fuller use of the roads' huge plant—hence bigger earnings. (Business Week, December 23, page 52.)

Baker, Weeks & Harden, One Wall st., New York 5.

Railroad Review. Basic industry data and financial details of individual carriers; yardsticks of per share earnings, trend and quality of earnings, also price-earnings ratios, dividend yields. December 21.

Bache & Co., 36 Wall st., New York 5.

The Rails—What Now? A progress report. November 29.

Fahnestock & Co., 65 Broadway, New York 6.

St. Louis-San Francisco Railway Co. Weekly Review, November 27.

Southern Railway Co. Weekly Review, December 11.

Save \$\$\$ on Cylinder Head Repairs

with "HELIARC" welding

Trade-Mark

Building up a worn valve seat using cast iron rod. Note the compact heat-retaining box.

You don't need to scrap worn or cracked cast iron diesel cylinder heads. A worn one can be made as-good-as-new and at less than half the cost of a new head by means of HELIARC inert-gas shielded arc welding. Only with HELIARC welding will the molten cast iron in the puddle take on a remarkable fluidity that makes welding easy.

Cracks near the injector hole and in the areas of the stud holes as well as worn valve seats are speedily repaired using this process.

Ask OXWELD for details on how this and other money-saving repairs are made on diesel parts.

The term "Heliarc" is a registered trade-mark.

OXWELD RAILROAD SERVICE DIVISION
Union Carbide and Carbon Corporation

UCC

Carbide and Carbon Building

Chicago and New York

In Canada: Canadian Railroad Service Company, Limited, Toronto



Cast iron diesel cylinder head repaired by HELIARC welding and ready for thousands of hours more service.



SINCE 1912 - THE COMPLETE OXY-ACTYLENE SERVICE FOR AMERICAN RAILROADS

Hemphill, Noyes, Graham, Parsons & Co., 15 Broad st., New York 5.

Northern Pacific Railway Company.
Rail Notes, November 30.

H. Hentz & Co., 60 Beaver st., New York 4.

An Analysis of Gulf, Mobile & Ohio Railroad. December 18.

Smith, Barney & Co., 14 Wall st., New York 5.

Missouri Pacific Railroad Company.
Railroad Bulletin No. 50. November 27.

Great Northern Railway Company.
Railroad Bulletin No. 51. December 8.

Vilas & Hickey, 49 Wall st., New York 5.

Missouri Pacific Railroad. Assent to the plan recommended. December 19.

Outlook for Railroad Securities, by E. Frederic Uhrbrock. Address to the Maine Investment Dealers Association. November 30.

J. R. Williston & Co., 115 Broadway, New York 6.

Current Position of Railroad Securities. December 7.

Selected Income and Balance-Sheet Items of Class I Steam Railways in the United States

Compiled from 127 reports (Form IBS) representing 131 steam railways

(SWITCHING AND TERMINAL COMPANIES NOT INCLUDED)

Income Items	United States			
	For the month of September	1950	For the nine months of	1949
1. Net railway operating income.....	\$122,622,396	\$63,473,326	\$679,891,527	\$495,359,257
2. Other income.....	22,842,089	15,184,756	169,772,666	153,376,115
3. Total income.....	145,464,485	78,658,084	849,664,193	648,735,372
4. Miscellaneous deductions from income	4,033,979	2,705,580	34,550,791	27,015,582
5. Income available for fixed charges.....	141,430,506	75,952,504	815,113,402	621,719,790
6. Fixed charges:				
6-01. Rent for leased roads and equipment.....	13,553,205	11,076,074	91,146,619	89,545,426
6-02. Interest deductions ¹	25,094,805	23,317,368	225,572,047	221,586,876
6-03. Other deductions.....	233,429	212,400	1,988,524	1,797,966
6-04. Total fixed charges.....	38,881,439	34,605,842	318,707,190	312,930,268
7. Income after fixed charges.....	102,549,067	41,346,662	496,406,212	308,709,522
8. Other Deductions.....	3,583,906	3,300,195	29,093,006	28,456,992
9. Net income.....	98,965,161	38,046,467	467,313,206	280,332,530
10. Depreciation (Way and structures and Equipment).....	36,892,710	34,052,295	319,741,402	302,389,610
11. Amortization of defense projects.....	1,368,408	1,376,323	12,335,877	12,297,539
12. Federal income taxes.....	81,612,421	28,322,722	342,290,638	200,583,182
13. Dividend appropriations:				
13-01. On common stock.....	14,788,788	10,900,016	123,104,723	128,349,201
13-02. On preferred stock.....	1,341,893	1,191,961	46,637,731	45,675,227
Ratio of income to fixed charges (Item 5 ÷ 6—04).....	3.64	2.19	2.56	1.99

Selected Expenditures and Asset Items

Selected Expenditures and Asset Items	United States	
	Balance at end of September	1950
17. Expenditures (gross) for additions and betterments—Road.....	\$194,427,219	\$242,759,763
18. Expenditures (gross) for additions and betterments—Equipment.....	573,685,804	758,580,410
19. Investments in stocks, bonds, etc., other than those of affiliated companies (Total, Account 707).....	462,680,465	513,301,501
20. Other unadjusted debits.....	109,845,143	129,935,565
21. Cash.....	973,738,249	722,303,185
22. Temporary cash investments.....	981,096,309	756,987,199
23. Special deposits.....	114,939,281	103,859,952
24. Loans and bills receivable.....	1,050,257	2,542,084
25. Traffic and car-service balances—Dr.....	52,828,330	43,649,096
26. Net balances receivable from agents and conductors.....	172,034,859	127,916,304
27. Miscellaneous accounts receivable.....	346,988,095	275,362,151
28. Materials and supplies.....	69,389,690	773,720,289
29. Interest and dividends receivable.....	13,862,612	15,964,670
30. Accrued accounts receivable.....	204,665,104	158,588,684
31. Other current assets.....	35,059,511	37,102,262
32. Total current assets (items 21 to 31).....	3,593,652,297	3,017,995,876

Selected Liability Items

Selected Liability Items	United States	
	1950	1949
40. Funded debt maturing within 6 months ²	\$149,512,274	\$122,452,834
41. Loans and bills payable ³	1,920,369	5,788,203
42. Traffic and car-service balances—Cr.....	113,069,326	80,882,599
43. Audited accounts and wages payable.....	490,540,265	418,419,853
44. Miscellaneous accounts payable.....	226,834,100	207,522,203
45. Interest matured unpaid.....	41,179,564	40,447,134
46. Dividends matured unpaid.....	20,091,047	20,604,565
47. Unmatured interest accrued.....	75,363,984	74,278,047
48. Unmatured dividends declared.....	16,646,475	15,452,076
49. Accrued accounts payable.....	183,529,822	159,140,392
50. Taxes accrued.....	752,972,970	659,161,267
51. Other current liabilities.....	92,482,879	88,503,289
52. Total current liabilities (items 41 to 51).....	2,014,629,901	1,770,199,628
53. Analysis of taxes accrued:		
53-01. U. S. Government taxes.....	551,524,315	476,339,791
53-02. Other than U. S. Government taxes.....	201,448,655	182,821,476
54. Other unadjusted credits.....	285,205,865	266,721,940

¹ Represents accruals, including the amount in default.

² Includes payments of principal of long-term debt (other than long-term debt in default) which becomes due within six months after close of month of report.

³ Includes obligations which mature not more than one year after date of issue.

Compiled by the Bureau of Transport Economics and Statistics, Interstate Commerce Commission.
Subject to revision.

RAILWAY OFFICERS

EXECUTIVE

Draper Becomes Sole Trustee of Long Island

William Henry Draper, Jr., vice-president of Dillon, Read & Co., and a reserve major general in the United States Army, took office on December 23 as sole trustee of the Long Island. Mr. Draper's appointment to that position by the United States District Court having jurisdiction over the railroad's reorganization, subject to Interstate Commerce Commission approval, was reported in *Railway Age* of December 16, page 66; commission ratification of the appointment was announced late on December 21.

In his new position, Mr. Draper succeeds Hunter L. Delatour and David E. Smucker, former trustees, who voluntarily resigned their positions on November 29, following the November 22 wreck at Kew Gardens, N. Y. (See *Railway Age* of December 2.) Mr. Smucker, however, will continue "temporarily" as a consultant to Mr. Draper



William Henry Draper, Jr.

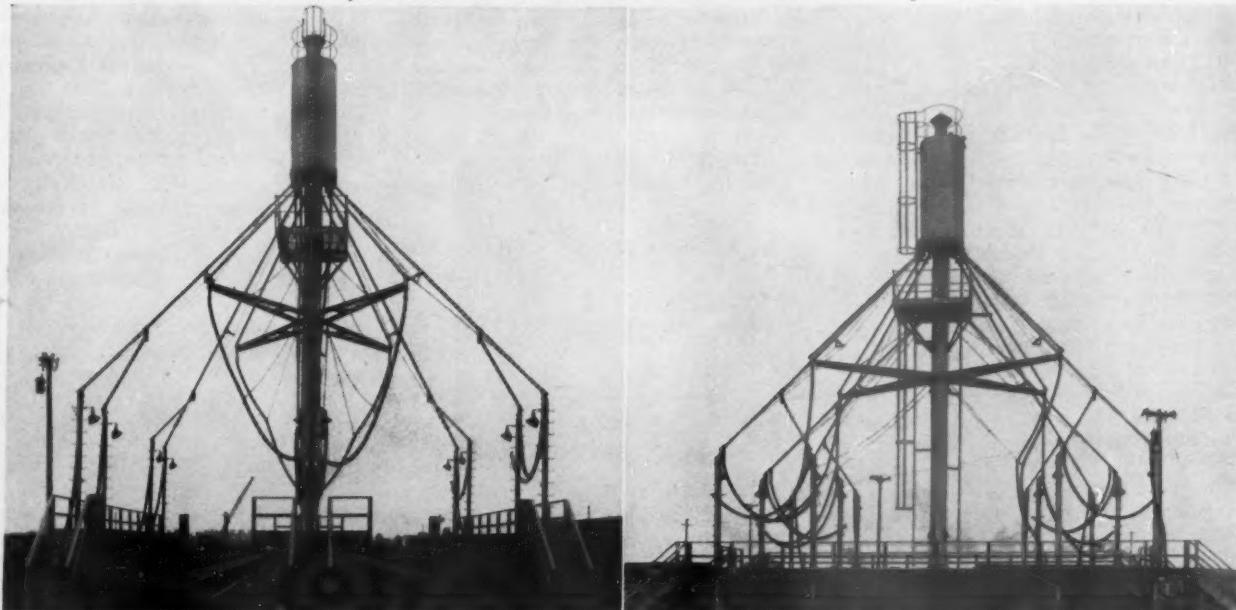
and to the new general manager, Frank H. Simon, on matters pertaining to operation of the railroad.

Mr. Draper, on December 26, announced that he also would have as consultants Col. Sidney H. Bingham, chairman of the New York City Board of Transportation, and Richard E. Dougherty, retired vice-president of the New York Central.

Mr. Draper was born at New York on August 10, 1894, and received his A.B. degree in 1916 and his M.A. degree in 1917 from New York University, and an honorary LL.D. degree from the University of Louisville in 1948. During World War I Mr. Draper was a major of infantry in the United States Army, commanding group five development battalions at Camp Upton, N. Y. After World War I he remained in the Officers' Reserve Corps and from 1936 to 1940 was resident

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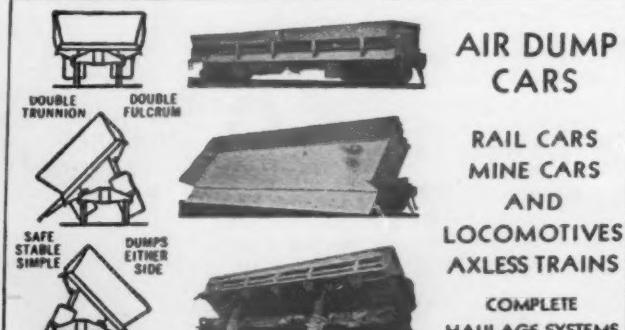
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From 1919 to 1921 Mr. Draper was with the National City Bank, New York, and from 1923 to 1927 was assistant treasurer of the Bankers Trust Company, New York. He joined Dillon, Read & Co. in 1927 and became vice-president in 1937, returning to the latter position after a leave of absence to serve on active military duty during World War II. In 1940 he joined the General Staff of the United States Army at Washington and was subsequently assigned to Camp Clipper, Cal., Fort Lewis, Wash., and Camp Forrest, Tenn. In 1943 he was sent overseas to the Pacific Theater, commanding the 136th Infantry Regiment. In 1944 he was in charge of contract termination at Washington. From 1945 to 1946 Mr. Draper was chief of the Economic Division, Control Council for Germany, and in 1947 became economic advisor to the commander-in-chief, European Theater, with the rank of major general, resigning in February, 1949. Mr. Draper was awarded the Legion of Merit in 1943 and the Distinguished Service Medal in 1948. He was village trustee and police commissioner of Scarsdale, N. Y., from 1939 to 1940; member of the Joint Army and Navy Committee on Welfare and Recreation in 1941; member of the President's Advisory committee on Selective Service at Washington in 1940; and assistant chief of the Morale Branch in 1941.

Vernon T. Johnston, office manager in the personnel department of the ILLINOIS CENTRAL, has been appointed executive general agent at Jackson, Miss., effective January 1, 1951.

George F. Mills, general agent of the ERIE at Los Angeles, Cal., has been appointed assistant to vice-president in charge of traffic at Cleveland, Ohio.

Daniel J. McGanney, general traffic manager of the SOUTHERN PACIFIC, with headquarters at Chicago, has been appointed assistant to the president, with headquarters at San Francisco, Cal.

FINANCIAL, LEGAL & ACCOUNTING

Roger F. Brown has been appointed assistant comptroller of the CHESAPEAKE & OHIO at Cleveland, Ohio. Mr. Brown was formerly in charge of the clerical methods staff. He will have complete administrative authority over headquarters and district accounting and, in addition, will supervise activities of the system internal audit staff.

As announced in the *Railway Age* of November 4, **Gordon D. Briggs** has been appointed general counsel of the BANGOR & AROOSTOOK and elected clerk of the corporation. Mr. Briggs was born at Pittsfield, Me., on August 24, 1912, and was graduated from

Bowdoin College (A.B. 1933) and Harvard Law School (LL.B. 1936), being admitted to practice law in Maine in the latter year. Mr. Briggs joined the Bangor Hydro-Electric Company in 1936 as assistant general counsel and was promoted to general counsel

Ennis and San Antonio, and in 1936 became assistant trainmaster at the Houston terminals, being advanced to division trainmaster, Houston division, in 1938. After serving as trainmaster on the Victoria division from 1940 to 1942, he was appointed assistant supervisor of wages at Houston, and in 1943 was promoted to supervisor of wages at that point. Mr. Kelly was made assistant manager of personnel in 1944, and three years later became terminal superintendent at Houston. In April, 1948, he was granted a leave of absence by the S. P. to accept the position of general manager of the Texas Mexican, in which capacity he remained until his recent appointment.

M. C. Sharp, superintendent automotive equipment, first mechanical district, of the CHICAGO, ROCK ISLAND & PACIFIC, has been promoted to assistant to general superintendent at Chicago.

O. P. Dowling, Jr., trainmaster of the ATLANTIC COAST LINE at Savannah, Ga., has been appointed superintendent terminals at Richmond, Va. **S. C. King**, road foreman of engines at Jacksonville, Fla., has been appointed trainmaster at Savannah. **B. B. Vaughan**, trainmaster at Sanford, Fla., has been transferred to Waycross, Ga. **J. W. Plant**, yardmaster, has been appointed trainmaster of the Jacksonville district, with headquarters at Sanford.

Frank H. Daggett, vice-president and general manager of the BANGOR & AROOSTOOK at Bangor, Me., has resigned as general manager, effective January 1, 1951, but will remain temporarily as vice-president in an advisory capacity. **J. C. Gardiner, Jr.**, assistant to president, has been elected general manager.

Charles B. Fleming, assistant superintendent of the New York Terminal district of the NEW YORK CENTRAL at Weehawken, N. J., has been appointed assistant superintendent in charge of marine operations in New York harbor, with headquarters at New York, effective January 1, 1951, succeeding **F. William Gleisner**, who will retire on December 31, after 47 years of service. **Walter H. Harris**, trainmaster of the Rochester division at Rochester, N. Y., has been appointed assistant superintendent of the River division (West Shore) at Weehawken.

Frank Herbert Simon, superintendent of transportation of the NEW YORK CITY TRANSIT SYSTEM, has been appointed general manager of the LONG ISLAND by William H. Draper, Jr., whose appointment as sole trustee of that company is reported elsewhere in this issue.

Mr. Simon was born in New York on April 15, 1909, and attended public school, Townsend Harris Hall and the College of the City of New York. He was graduated from Massachusetts Institute of Technology in 1932 with the degrees of bachelor of science in civil



Gordon D. Briggs

in 1940. He served with the army from October, 1942, to December, 1945, when he was discharged with the rank of captain. On January 28, 1946, Mr. Briggs entered the service of the B. & A. as assistant general counsel and in June, 1948, was appointed also assistant to the president for finance.

OPERATING

As reported in the November 11 *Railway Age*, **Gerard William Kelly** has been appointed superintendent of the Houston terminals of the SOUTHERN PACIFIC LINES, with headquarters at Houston, Tex. Mr. Kelly was born



Gerard William Kelly

on February 7, 1903, at San Antonio, Tex., and was educated in the parochial schools, San Antonio High School and St. Mary's College. He began railroading with the S. P. in 1916 as a call boy in his native city, and later held various clerical positions in the yard office and freight station until 1929. Subsequently he served as yardmaster at Luling, Tex., Glidden,

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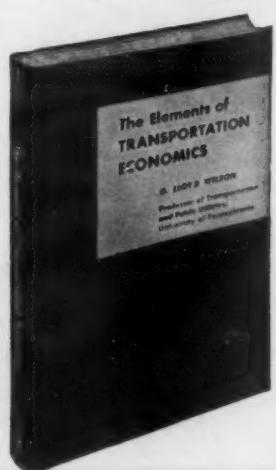
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engineering and master of science in railroad operation. As part of the institute's course in railroad operation, he was employed by the Boston & Maine from 1929 to 1932 as a cooperative apprentice. On September 1, 1932, 10 days before the opening of the new Independent division of the New York City subway system, he was appointed assistant dispatcher. A year later he was advanced to dispatcher, on March 16, 1942, to trainmaster, and on July 1, 1950, to superintendent of transportation. Mr. Simon's duties in



Frank Herbert Simon

the latter capacity were to coordinate rapid transit matters; review schedules and working programs; and represent the general superintendent at trial board hearings of disciplinary charges and at conferences concerning matters affecting the city transit system. He was in charge of the Traffic Research Bureau which checks traffic and determines schedule changes to be made. He conducted special traffic studies, handled special train operations, assisted in development of plans for future construction and operation, and prepared the annual budget for the transit system. Mr. Simon has also represented the Board of Transportation before various civic associations and taxpayers groups. During World War II he was on active duty for five and a half years as a major in the Coast Artillery Corps in the United States Army.

TRAFFIC

C. O. Gustafson, general agent of the MINNEAPOLIS & ST. LOUIS at Chicago, has been advanced to assistant freight traffic manager.

W. F. Adams, general freight agent of the CHESAPEAKE & OHIO, has been appointed assistant freight traffic manager, with headquarters as before at Richmond, Va. **K. S. Price** has been appointed chief of divisions bureau and **R. B. LeGrande** has been appointed chief of tariff bureau, both at Richmond.

Leland L. Harris has been appointed general agent of the ERIE at



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Memphis, Tenn., succeeding **R. L. Miller**, deceased. **Lee R. Breckenridge** has been appointed general agent at Indianapolis, Ind., succeeding **Earl C. Adler**, who has been transferred to Los Angeles, Cal., to replace **George F. Mills**, appointed assistant to vice-president in charge of traffic at Cleveland, Ohio.

Joseph C. Connors, general agent in the passenger traffic department of the **NEW YORK CENTRAL**, has been appointed assistant general passenger agent at New York. **John P. Sweeney**, passenger representative, has been appointed district passenger agent, with headquarters as before at New York.

As reported in the *Railway Age* of December 23, **Theodore E. Smith** has been appointed general passenger agent of the **PITTSBURGH & LAKE ERIE**, a **NEW YORK CENTRAL** affiliate, at Pittsburgh, Pa. Mr. Smith was born in 1899 at McKeesport, Pa., and entered railroad service as a clerk in the passenger traffic department of the P. & L. E. at Pittsburgh. After several promotions, he became district passenger agent there in 1945 and one year later was appointed division passenger agent at Syracuse, N. Y., which position he held at the time of his recent promotion.

M. R. Garrison and **J. L. Meehan**, assistant freight traffic managers of the **NEW YORK CENTRAL SYSTEM** at New York and Detroit, Mich., respectively, have been appointed freight traffic managers, with the same headquarters, effective January 1. Mr. Garrison succeeds **James P. Dervin**, who will retire on December 31, after 50 years of railroad service. Mr. Meehan succeeds **Edward W. Brunek** who will retire on the same date, after 49 years of service.

MECHANICAL

George H. Nowell, master mechanic of the **CANADIAN PACIFIC'S** Pacific region, with headquarters at Vancouver, B. C., has retired after 51 years of service with that road. Succeeding Mr. Nowell is **William Stewart**, master mechanic of the Saskatchewan district. **Albert Betton**, division master mechanic at Lethbridge, Alta., has been transferred to Revelstoke, B. C., and is in turn succeeded by **Arthur Baynham**, division master mechanic of the Portage division, at Winnipeg, Man. **F. G. Noseworthy**, locomotive foreman in the Winnipeg roundhouse, succeeds Mr. Baynham.

G. S. Glaiber, general supervisor electric equipment of the **NEW YORK CENTRAL SYSTEM**, has been appointed assistant superintendent of equipment, with headquarters as before at New York, succeeding **F. J. Kossuth**, whose appointment as assistant to general superintendent equipment—car at New York was reported in the *Railway Age* of December 23.

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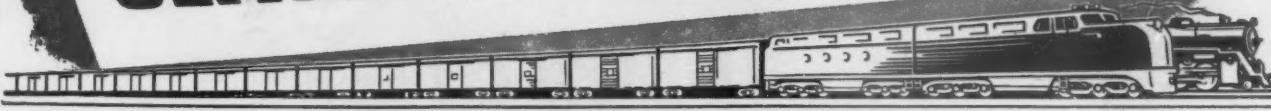
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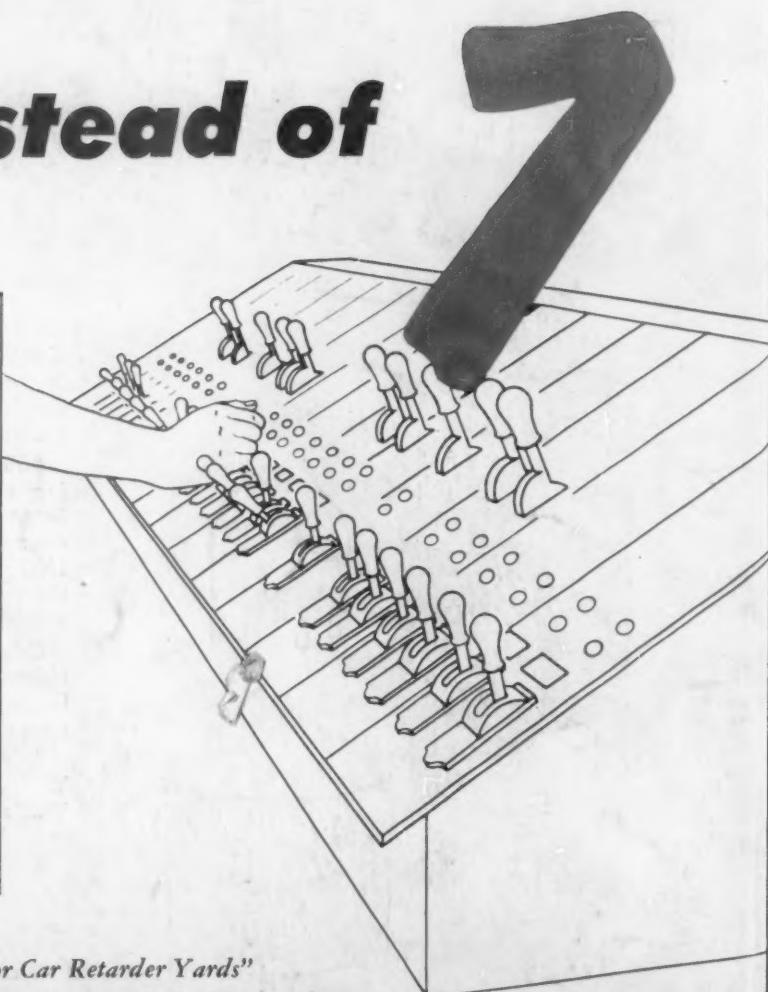
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